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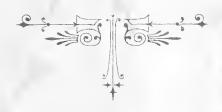




→ SEGOND + ANNUAL + REPORT ←

->- AMERICAN & TAXIDERMISTS -

→ 1881-82 <





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SECOND ANNUAL REPORT

OF THE

SOCIETY

OF

AMERICAN TAXIDERMISTS.

= servery & America, Toxiderality

March 25th, 1881, to March 24th, 1882.

COMPILED BY THE SECRETARY.

125745 JAN 24 1883 ROCHESTER VY.

JUDSON J. WITHALL, BOOK AND JOB PRINTER, 39 N. UNION STREET. 1882.

SOCIETY

OF

AMERICAN TAXIDERMISTS.

Organized March 24th, 1880.

List of Officers for 1881.

	PR	EESL	DEN	T.			
Prof. W. E. D. SCOTT,	-	-	-	-	-	OF	Princeton, N. J.
L	ICE	PRI	ESID	ENJ	<i>r</i> '.		
FREDERIC S. WEBSTER,	-	-	-	-	-	OF	Rochester, N. Y.
	SE	CRE	TAR	Y.			
WM. T. HORNADAY, -	-		-	-	-	OF	Rochester, N. Y.
	TR	EAS	URE	ER.			
FREDERIC A. LUCAS,	-	-	-	-	-	OF	Rochester, N. Y.
EXEC	TUTI	TE	COM	[M]T	TEE	7	
THOS. W. FRAINE, -							
WM. G. SMITH,							
JULES F. D. BAILLY, -							Rochester, N. Y.
And th	æ abo	ove 6	Hener	al Oi	fficers	٠.	
LOCAL COMMITTEE		R TI HIB			ron	ME	ETING AND
NEWTON DEXTER, Chair							
F. T. JENCKS,							
PERCY W. ALDRICH							
FREDERIC A. LUCAS, -							
CHAS. M. CARPENTER,							
GEO. M. GRAY,	~	-	-	~	-	OF	Providence, R. I.

Members of the Society.

HONORARY MEMBERS.

-		-				-		Cambridge, Mass.
-		-		-		-		New York City.
-		-		-		-		Washington, D. C.
	_		-		-		-	Milton, Mass.
	-		-		-		-	Middleboro, Mass.
+		-		-		-		Charleston, S. C.
	-		~		-		-	Columbus, Ohio.
~		-		-		-		Rochester, N. Y.
	-							

CORRESPONDING MEMBERS.

BURTON, WALTER -		-		-		London, England.
DEKEMPENEER, C. E.	~		-			 Auckland, New Zealand.
Muhl, George -		-		-		- Paris, France.
THEOBALD, ALBERT G.	R.		-		-	Coimbatore, Madras Pres., India.

ACTIVE MEMBERS.

Aldrich, P. W.		_		409 Washington St., Boston, Mass.
				- 26 West Main St., Rochester, N. Y.
				- Ward's Museum, Rochester, N. Y.
				Wesleyan University, Middletown, Conn.
				Taunton, Mass.
				- Washington, D. C.
				- Providence, R. I.
				- 409 Washington St., Boston, Mass.
				Syracuse, N. Y.
				- Cleveland, Ohio.
COPELAND, J. C		-		- Court St., Rochester, N. Y.
CRITCHLEY, WILLIAM J.	-		-	- Ward's Museum, Rochester, N. Y.
DAVIE, OLIVER		-		Columbus, Ohio.
DEXTER, NEWTON -	-		_	Providence, R. 1.
ELGIN, REV. WILLIAM		_		Indianapolis, Ind.
Forney, Andrew II.	~			National Museum, Washington, D. C.
				13 Joslyn Park, Rochester, N. Y.
GRAHAM, C. W.	-			St. Johnsbury, Vt.
GRAY, GEO. M		_		258 Westminister St., Providence, R. 1.
Haskin, I. Chas	-		-	- Rochester, N. Y.
HAZLETON, JR., GEO. C.				Washington, D. C.
				Medina, N. Y.
				- Medina, N. Y.
Hedley, Chas. H	-		-	Medina, N. Y.

LIST OF ACTIVE MEMBERS—Continued.

Hendley, John W National Museum, Washington, D. Hornaday, William T National Museum, Washington, D.	Ċ.
Hough, Romeyn B Cornell University, Ithica, N.	Υ.
Houghton, C. A West Medway, Mas	
Humphrey, Fred Lawrence, Mass.	
Hutchison, Geo. F 5 Meigs St., Rochester, N.	
Jasper, Dr. Theodore, Columbus, Obio.	
**Jeffrey, Miss M. E. W Rochester, N. Y.	
Jencks, Fred. T 258 Westminister St., Providence, R.	
King, Samuel Nantucket, Mass.	
Lucas, Frederic A National Museum, Washington, D.	
Marshall, Henry - National Museum, Washington, D.	
Martens, John - 107 North Ave., Rochester, N.	
McCorмick, Lewis M National Miseum, Washington, D.	
Myhlel, A Medina, N. Y.	•
Nicholas, George L Princeton College, Princeton, N.	.]
Ormsbee, E. L Cleveland, Ohio.	•
Palmer, Joseph - National Museum, Washington D	('
Palmer, William National Museum, Washington, D.	Ċ.
Park, Austin F 31 Museum Buildings, Troy, N. Y.	
Rathbun, S. F Auburn, N. Y.	- •
Rowland, Thomas Paterson, N. J.	
Scott, Prof. W. E. D Princeton College, Princeton, N.	J.
Shorten, John W Cincinnati, Ohio.	
Smith, William G Denver, Col.	
Smith, Miss E Denver, Col.	
Southwick, T. T Rochester, N. Y.	
Spencer, F. W Spencerport, N. Y.	Υ.
Staebner, Prof. F. W State Normal School, Westfield, Mas	ss.
Sumner, Dr. Chas. R 14 S. Clinton St., Rochester, N. M.	Υ.
TENNENT, JOSIAH S Ward's Museum, Rochester, N. Y.	
Tennent, I. T Graham's Turnout, Barnwell Co., S. G	C.
Townsend, C. H Academy of Sciences, Philadelphia, P.	
Vick, William Vick Park, Rochester, N. Y	Y.
Wallace, John 16 North William St., New York Cit	у.
Webster, Frederic S Ward's Museum, Rochester, N. Y	Υ.
Whiting, J. F 447 Dudley St., Boston, Mas	88.
Wood, A. H Painted Post, N. Y	Ϊ.
Wood, Nelson R Ward's Museum, Rochester, N. Y	ř.
Wright, Frank S Auburn, N. Y.	
* Deceased. New York, October 15, 1882.	

SECOND

COMPETITIVE AND GENERAL EXHIBITION

OF THE

SOCIETY OF AMERICAN TAXIDERMISTS.

Boston, Mass., Dec. 14-21, 1881.

All the honors to be awarded before disclosing any exhibitor's name to the Judges.

JUDGES.

Mr. JAS. C. BEARD, Artist, New York City.

Prof. J. W. P. JENKS, Naturalist, Brown University, Providence, R. I.

MR. THOS. H. HINCKLEY, Artist, Milton, Mass.

RULES AND REGULATIONS

I. It is to be understood that Diplomas and Certificates are not to be awarded for single pieces or groups, except in the cases indicated by Art. 13, Sec. 3 of the Constitution, and also those provided for in the list of Special Prizes. Regular Diplomas and Certificates are intended to show a degree of average excellence, and possess a high value.

In order to indicate clearly to both members and Judges the exact basis upon which future awards are to be made, it has been decided that:

- 2. An "exhibit" cannot be entered for a Diploma or Certificate in its respective class, unless it contains, either of single specimens or specimens arranged in groups, as follows:
- a. If of Mammals, at least six small or three large specimens, or the equivalent composed of both small and large, counting one large specimen as being equal to two small ones. A Setter dog shall be considered the minimum size for large Mammals.
- b. If of Birds, at least fifteen small or five large specimens, or the equivalent composed of both large and small, the Red-tailed Hawk being considered the minimum size for large Birds.

- c. If of Reptiles, at least eight small or four large specimens, one of eight pounds weight being considered the minimum for large Reptiles.
 - d. If of Fishes, the same as Reptiles.
- e. If of heads, at least five, some of which shall be as large as the head of a Setter dog.
- f. If of Mammal skins, at least twenty, and some of the skins must be as large as the skin of a common fox.
- g. If of Bird skins, at least fifty, some of which must be as large as a Redtailed hawk.
- 4. Each member who enters one or more competitive exhibits must furnish an affidavit declaring that all the specimens in said exhibit or exhibits were mounted by his own hands and without skilled assistance of any kind.
- 5. All freight and express charges to and from the place of exhibit will be met by the exhibitor; but the labor of unpacking, arranging in the hall and repacking will be performed by the Society without charge.
- 6. Exhibits must be promptly on hand so as to be properly placed in the hall in time for inspection by the Judges. Objects received while the inspection is in progress will be excluded from competition.
- 7. Objects intended for sale shall in every case be priced in the catalogue, and any member of the Executive Committee may dispose of objects belonging to non-present members at the catalogue price by becoming personally responsible to the Treasurer for the payment of the purchase money. No object shall be delivered to a purchaser without a written order from the Treasurer, nor in any case until the close of the exhibition
- 8. Whenever an object is sold at an exhibition, ten per cent. of the selling price shall be paid into the treasury of the Society.

By Order of the Executive Committee.

WM. T. HORNADAY,

W. E. D. SCOTT,

President.

Secretary.

LIST OF HONORS, REGULAR AND SPECIAL, TO BE AWARD-ED AT THE SECOND ANNUAL EXHIBITION.

REGULAR PRIZES.

Provided for Annually by the Constitution.

For the best piece in entire exhibition, - - Specialty Medal, (Silver).

For the second best piece in the entire exhibition, Second Specialty Medal, (Bronze).

For the best general exhibit according to Article

13, Section 3, of the Constitution, - General Average Medal, (Silver).

To each exhibit in Class A, Taxidermy Proper, as

per exhibition catalogue, which shall

stand at 85 per cent. or over, - Diploma of Honor.

To each exhibit in Class A which shall stand at

75 and under 85 per cent., - - Certificate of Merit.

SPECIAL PRIZES.

List compiled and approved by the Executive Committee.

For the best miscellaneous exhibit which, in the opinion of the judges, presents, as a whole, the most creditable ap-
pearance, Bronze Medal.
For the best exhibit of Reptiles, Bronze Medal.
For the best exhibit of Fishes, Bronze Medal,
For the best collection of heads, size and quality considered, Silver Medal.
For the best display of articles of ornament or use, Silver Medal.
For the handsomest article of ornament or use, Diploma of Honor.
For the second handsomest article of ornament or use, - Certificate of Merit.
For the best exhibit of grotesque groups and animals grotesquely mounted, Bronze Medal.
For grotesque groups, etc., Diplomas and Certificates will be awarded at the discretion of the Judges.
For the best exhibit of Accessories to Taxidermy, in each
section, Diploma of Honor.
For the second best in the same, Certificate of Merit.
It is to be understood that the Judges have the power to withhold any one of

the above Special Prizes, if it shall ever occur that the exhibit ranking "best" or

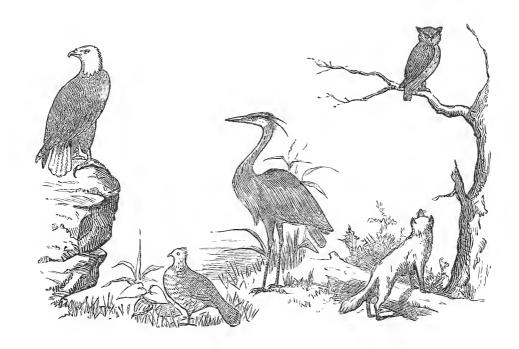
By order of the Executive Committee.

"second best" shall be deemed unworthy of an award.

LIST OF POINTS AND VALUES.

For the Judgment of Specimens at the Exhibitions of the Society of American Taxidermists.

Groups of Mammals.	Single Mammal Specimens.
General difficulty of subject, 15	General difficulty of subject, 15
Attitude, 15	Attitude, 15
General artistic effect, 15	Form and proportions, 15
Size of specimens, ro	Size of specimens, 15
Neatness of finish, 10	Development of muscles, 10
Form, 10	Expression, 4 10
Expression, 10	General neatness of finish, 10
Smoothness, 5	Smoothness, 5
	Naturalness of colored parts, 5
Quality of natural surroundings, - 5	
	Perfection, 100
Perfection, 100	
Groups of Birds.	Single Bird Specimens.
	Attitude, 15
	Centre of gravity, 15
	Form, 15
Size of specimens, 15	Naturalness of size, 10
Natural surroundings and effects, 15	Smoothness, 10
Form, 10	Angle of legs, 10
	Adjustment of wings, 10
Naturalness of colored parts, 5	Neatness of finish, 10
	Naturalness of colored parts, 5
	
Perfection, 100	Perfection, 100
Groups of Reptiles and Fishes.	Single Reptiles.
Smoothness, 15	Smoothness, 15
Naturalness of size, 10	Naturalness of size, 15
" of form, 15	" of form 15
" of color, 15	" of colors, 15
Attitude, 10	Attitude, 10
Size and difficulty, 15	Size, 10
General neatness, 5	General difficulty, 10
General artistic effect, 10	" neatness, 10
Quality of accessories, 5	
Perfection, 100	Perfection, 100
reflection, 100	
$Single\ Fishes.$	Bird Skins, (in collections.)
Form, 20	Naturalness of size, 15
Naturalness of size, 20	Cleanliness, 15
of colors, 15	,
Smoothness, 20	Position of wings, 15
Style of mounting, 15	Shape of neek, 10
Expression, 5	Position of legs,
Mouth-parts, 5	General form, 10
	Smoothness, 10
Perfection, 100	
	Perfection, 100
He	ads.
Size and difficulty,	15
Form,	15
Expression,	
	15
Smoothness,	
Mouth,	
Ears, - Naturalness of colored parts,	
Style of mounting,	10
	5
General neatness,	
Perfection,	100



CATALOGUE.

NOTICE.—All objects with prices affixed are for sale, and can be delivered at the close of the exhibition.

Parties desiring to make purchases, will please apply to any of the Society officers who may be present.

No object will be considered sold until at least ten per cent of the price has been paid.

CLASS A.—TAXIDERMY PROPER.

Section 1.—Groups of Mammals.

1. "A Fight in the Tree-tops." (Orang Utans), Wm. T. Hornaday, - \$800.00 Loaned by Prof. H. A. Ward

Silver specialty medal at First Exhibition.

The animals composing this group were shot in Borneo, by the taxidermist who has since mounted them according to the drawings and measurements then taken from life. The group is intended to represent a section from the top of a Bornean forest, with animals, trees and foliage faithfully reproduced.

Although the orang utan is provided with powerful canine teeth, they seem to have been given him chiefly for the purpose of tearing open fruit, for his fighting consists in biting the fingers or face of his antagonist. Many specimens have been shot which had fingers and toes missing, the result of such encounters as here represented. Orangs in captivity, when vicious. will seize a man's hand whenever possible, and make a savage bite at the fingers.

The orang utan is next to the gorilla in size and fierceness. Two species are recognized by naturalists, the specimens in this group belonging to that known as Simia Wurmbii,

Section 1 A.— Mixed Groups.

2. Caught,	-		С	. W	<i>.</i> (Graham	ı, -	-	-	-	\$10.00
A "winged"	Partridge	e attack	ed by a M	ink.	Μ	ounted	in the	same	attitudes	as	when taken.
3. Coming to	the Poi	nt	V	m.	Т.	Horna	ıday,	-	-	_	\$150.00

A white Setter Dog has come suddenly upon a flock of Quails concealed behind a thick bush, in the open woods at the edge of a green meadow. The time represented is early morning in autumn. Although the dog cannot see the game, his keen scent tells him it is very near, and he has come to "a point" to indicate to his master the close proximity of the birds.

4. "Does Your Mother Know You're Out?" Wm T. Hornaday,

A Scarlet Ibis, stalking along the bank of a tropical river, comes suddenly upon a tiny alligator which has just emerged from its shell. Two other alligator eggs lie half buried in the sand ready to hatch.

Section 2.—Groups of Birds.

The Flamingo at Home. - -F. S. Webster, \$150.00

This group teaches some important facts in the natural history of the strange bird which forms the subject. In the shallow water, near the edge of a tropical lagoon, a female Flamingo has built her elevated nest of mud and grass, and in a half standing posture is covering her eggs. This nest is modeled according to the description and measurements given by Audobon. At the left of the nest, a stately male Flamingo on the bank is stepping into the water, while on the right another large male bird is stooping down, intently watching a small turtle which can just be discerned at the bottom of the water. The accessories, a dwarf palmetto and aquatic plants, are purposely few in number, and many desirable features in color have been omitted for the sake of preserving the entire naturalness of the surroundings.

- 6. Screech Owl and Young, (wall case). F. S. Webster, -
- 7. Snowy Owl and Ptarmigan, F. S. Webster. Loaned by Mr Donald Gordon.
- 8. Shrike and Vireo, -Josiah S. Tennent,
- 9. An Interrupted Dinner, F. A. Lucas, (with case), \$45.00

Certificate of Merit at First Exhibition.

A Red-tailed Hawk had just killed a partridge and had scarcely begun his meal, when a Goshawk swoops down upon him with outstretched talons to seize the quarry. The hawk has turned upon his back, shielding his prey with one wing, and with open beak and talons is ready to receive his assailant, who hovers in mid-air immediately above him. We commend this to politicians as showing the Heaven-inspired origin of the motto,—"To the Victors belong the Spoils."

Io. "Spring," (Blue-birds), -	Frederic A. Lucas, \$10.00
II. "Summer," (Yellow-birds), -	Frederic A. Lucas, 10 00
12. "Autumn," (Goldfinches), -	Frederic A. Lucas, 10.00
13. "Winter," (Sparrows), -	Frederic A. Lucas, 10.00
14. "Winter," (Snow Buntlings),	Frederic A. Lucas, 30 00
15. Sandpiper and Young,	Frederic A. Lucas,
16. Case of Birds,	E. L. Ormsbee,
17. Scarlet Tanagers,	Nelson R. Wood, 8.00
18. Marsh Wrens,	Nelson R. Wood, Io.oo
19. Cooper's Hawk and Grosbeak, -	Oliver Davie, 10.00
This Hawk was shot in the act here represe	nted, in the same attitude as when taken. The
Grosbeak had evidently been snatched from her	r nest which was found a short distance away.

- 20. Cedar Birds, (under shade), Wm.. J. Critchley, 15.00
- 21. Wax wings, (under shade), -C. W. Graham, 6.00
- 22. Snowy Owls, (table case), - Mr. & Mrs. G. H. Hedley, - (For Sale)

Pentagonal Revolving Centre Case, five Groups of Birds, as follows:

23. Blue Jays,
26. Owls, 27. Golden-winged Woodpecker,
28. White Owl and Weasel (in case), Mr. and Mrs. G H Hedley, - 25.00
29. Blue-winged Teal (in case), - Mr. and Mrs G H Hedley, - 25 00
30. Grouse (in case), C. W. Graham, 10.00
31. Woodcock and young (under glass shade), Thos. W. Fraine, - 15.00
32. Cabinet Group of American Game Birds (in case), a pair each of Ruffed Grouse, Pinnated Grouse, Quail, Woodcock and Snipe, T. W. Fraine, 50.00
33. Kildeer, Plover and Young (under oval shade), T. W. Fraine, - 20.00
34. Cabinet Group of Birds, (in case), - Fred. T. Jencks, 175.00
35. Miscellaneous Group of Birds, (glass shade), - P. W. Aldrich, - 36. Miscellaneous Group of Birds, (glass shade), - P. W. Aldrich, -
Section 3.—Groups of Reptiles.
Section 4.—Groups of Fishes.
37. "Fish for Dinner," C. E. De Kempeneer, 5.00
Section 5.—Single Mammals.
become by billigic manimum,
38. Fur Seal (Museum specimen), Wm. J. Critchley, Loaned by Prof. Ward's Establishment, Rochester, N. Y., \$75.00 This is the animal which furnishes the valuable seal fur of commerce.
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Section 6.—Single Birds.

	Crow, Josiah S. Tennent. For Sale. Screech Owl, Josiah S. Tennent. "
	Sparrow Hawk, Josiah S. Tennent. "
	Pileated Woodpecker, Josiah S. Tennent. "
-	Golden-winged Woodpecker, - Josiah S. Tennent.
-	Meadow Larks (2 specimens), Josiah S. Tennent. "
	Blue Jays (2 specimens), - Josiah S. Tennent. "
	Loggerhead Shrike, - Josiah S. Tennent.
	Mocking Birds (5 specimens), - Josiah S. Tennent.
	Great Northern Diver, - Oliver Davie. "
	Fish Hawk, Oliver Davie.
	Cormorants (2 specimens), - Oliver Davie.
	Cooper's Hawk (2 specimens), Oliver Davie.
	Herring Gull, Oliver Davie. " Quail, Oliver Davie. "
	Great Horned Owl, Oliver Davie.
-	,
	Widgeon, Oliver Davie. "
	Wood Duck, Oliver Davie. "
	American bittern, Onver Davie.
	White-fronted Goose, - Offiver Davie.
	Golden Eagle (museum specimen), F. S. Webster. Loaned by Prof. Ward.
	New Britain Pigeon (museum specimen), F. S. Webster. " " Paroquet (museum specimen), F. S. Webster. " "
	Paraguet (museum specimen) r 3 Websiel
71.	Snowy Owl, F. S. Webster. Loaned by Mr. Burke.
71. 72.	Snowy Owl, F. S. Webster. Loaned by Mr. Burke. Buffle-headed Duck, - F. S. Webster. Loaned by Mr. Frank Ward.
71. 72. 73.	Snowy Owl, F. S. Webster. Loaned by Mr. Burke. Buffle-headed Duck, - F. S. Webster. Loaned by Mr. Frank Ward. Caspian Tern (in full flight), F. S. Webster. " " "
71. 72. 73.	Snowy Owl, F. S. Webster. Loaned by Mr. Burke. Buffle-headed Duck, - F. S. Webster. Loaned by Mr. Frank Ward. Caspian Tern (in full flight), F. S. Webster. Bonaparte Gull, \$5.00
71. 72. 73. 74. 75.	Snowy Owl, F. S. Webster. Loaned by Mr. Burke. Buffle-headed Duck, - F. S. Webster. Loaned by Mr. Frank Ward. Caspian Tern (in full flight), F. S. Webster. Bonaparte Gull, F. S. Webster, \$5.00 English Pheasant, T. W. Fraine, Io.000
71. 72. 73. 74. 75.	Snowy Owl, F. S. Webster. Loaned by Mr. Burke. Buffle-headed Duck, - F. S. Webster. Loaned by Mr. Frank Ward. Caspian Tern (in full flight), F. S. Webster. Bonaparte Gull, F. S. Webster, \$5.00 English Pheasant, T. W. Fraine, Io.00 (half-albino), mounted on Bronze Stand, T.W. Fraine, 22.00
71. 72. 73. 74. 75. 76	Snowy Owl, F. S. Webster. Loaned by Mr. Burke. Buffle-headed Duck, - F. S. Webster. Loaned by Mr. Frank Ward. Caspian Tern (in full flight), F. S. Webster. Bonaparte Gull, F. S. Webster, \$5.00 English Pheasant, T. W. Fraine, 10.00 (half-albino), mounted on Bronze Stand, T.W. Fraine, 22.00 Black Grouse (Scotland), - T. W. Fraine, 8.50
71. 72. 73. 74. 75. 76 77.	Snowy Owl, F. S. Webster. Loaned by Mr. Burke. Buffle-headed Duck, - F. S. Webster. Loaned by Mr. Frank Ward. Caspian Tern (in full flight), F. S. Webster. " " " Bonaparte Gull, F. S. Webster. " " " " English Pheasant, T. W. Fraine, 10.00 (half-albino), mounted on Bronze Stand, T.W. Fraine, 22.00 Black Grouse (Scotland), - T. W. Fraine, 6.50
71. 72. 73. 74. 75. 76 77. 78.	Snowy Owl, F. S. Webster. Loaned by Mr. Burke. Buffle-headed Duck, - F. S. Webster. Loaned by Mr. Frank Ward. Caspian Tern (in full flight), F. S. Webster. Bonaparte Gull, F. S. Webster. English Pheasant, T. W. Fraine, 10.00 (half-albino), mounted on Bronze Stand, T.W. Fraine, 22.00 Black Grouse (Scotland), - T. W. Fraine, 6 50 Ruffled Grouse (drumming), T. W. Fraine, 6 50
71. 72. 73. 74. 75. 76 77. 78. 79. 80	Snowy Owl, F. S. Webster. Loaned by Mr. Burke. Buffle-headed Duck, - F. S. Webster. Loaned by Mr. Frank Ward. Caspian Tern (in full flight), F. S. Webster. Bonaparte Gull, F. S. Webster, \$5.00 English Pheasant, T. W. Fraine, 10.00 " (half-albino), mounted on Bronze Stand, T.W. Fraine, 22.00 Black Grouse (Scotland), - T. W. Fraine, 6 50 Ruffed Grouse (drumming), T. W. Fraine, 4.00
71. 72. 73. 74. 75. 76 77. 78. 79. 80	Snowy Owl, F. S. Webster. Loaned by Mr. Burke. Buffle-headed Duck, - F. S. Webster. Loaned by Mr. Frank Ward. Caspian Tern (in full flight), F. S. Webster. Bonaparte Gull, F. S. Webster. English Pheasant, T. W. Fraine, 10.00 (' (half-albino), mounted on Bronze Stand, T.W. Fraine, 22.00) Black Grouse (Scotland), - T. W. Fraine, 6 50 Ruffed Grouse (drumming), T. W. Fraine, 6 50 Ruffed Grouse (drumming), T. W. Fraine, 4.00 Quail, T. W. Fraine, 4.00 Quail, 4.00
71. 72. 73. 74. 75. 76 77. 78. 79. 80 81 82	Snowy Owl, F. S. Webster. Loaned by Mr. Burke. Buffle-headed Duck, - F. S. Webster. Loaned by Mr. Frank Ward. Caspian Tern (in full flight), F. S. Webster. Bonaparte Gull, F. S. Webster. English Pheasant, T. W. Fraine, 10.00 (half-albino), mounted on Bronze Stand, T.W. Fraine, 22.00 Black Grouse (Scotland), - T. W. Fraine, 6 50 Red Grouse (Scotland), - T. W. Fraine, 4.00 Quail, T. W. Fraine, 4.00 California Quail, T. W. Fraine, 5.00
71. 72. 73. 74. 75. 76 77. 78. 79. 80 81 82 83.	Snowy Owl, F. S. Webster. Loaned by Mr. Burke. Buffle-headed Duck, - F. S. Webster. Loaned by Mr. Frank Ward. Caspian Tern (in full flight), F. S. Webster. '' '' '' Bonaparte Gull, F. S. Webster \$5.00 English Pheasant, T. W. Fraine, 10.00 '' (half-albino), mounted on Bronze Stand, T.W. Fraine, 22.00 Black Grouse (Scotland), - T. W. Fraine, 6 50 Red Grouse (Scotland), - T. W. Fraine, 6 50 Ruffed Grouse (drumming), T. W. Fraine, 4.00 Quail, T. W. Fraine, 4.00 California Quail, T. W. Fraine, 5.00 Snipe, T. W. Fraine, 3.00
71. 72. 73. 74. 75. 76 77. 78. 79. 80 81 82 83. 84.	Snowy Owl, F. S. Webster. Loaned by Mr. Burke. Buffle-headed Duck, - F. S. Webster. Loaned by Mr. Frank Ward. Caspian Tern (in full flight), F. S. Webster. Bonaparte Gull, F. S. Webster, \$5.00 English Pheasant, T. W. Fraine, 10.00 " (half-albino), mounted on Bronze Stand, T.W. Fraine, 22.00 Black Grouse (Scotland), - T. W. Fraine, 6.50 Ruffed Grouse (drumming), T. W. Fraine, 6.50 Ruffed Grouse (drumming), T. W. Fraine, 4.00 Quail, T. W. Fraine, 4.00 California Quail, T. W. Fraine, 5.00 Snipe, T. W. Fraine, 3.00 Red-breasted Teal, - T. W. Fraine.
71. 72. 73. 74. 75. 76. 77. 78. 80. 81. 82. 83. 84. 85.	Snowy Owl, - - - F. S. Webster. Loaned by Mr. Burke. Buffle-headed Duck, - F. S. Webster. Loaned by Mr. Frank Ward. Caspian Tern (in full flight), F. S. Webster. - - - \$5.00 Bonaparte Gull, - - F. S. Webster. - - - \$5.00 English Pheasant, - - T. W. Fraine, - - - \$5.00 English Pheasant, - - T. W. Fraine, - - - \$5.00 English Pheasant, - - T. W. Fraine, - - - \$5.00 Black Grouse (Scotland), - T. W. Fraine, - - - 8.50 Red Grouse (Scotland), - T. W. Fraine, - - - 6.50 Ruffed Grouse (drumming), T. W. Fraine, - - - 4.00 Quail, - - - - - 4.00 Quail, - - - - - - -
71. 72. 73. 74. 75. 76. 77. 78. 80. 81. 82. 83. 84. 85.	Snowy Owl, F. S. Webster. Loaned by Mr. Burke. Buffle-headed Duck, - F. S. Webster. Caspian Tern (in full flight), F. S. Webster. Bonaparte Gull, F. S. Webster, English Pheasant, T. W. Fraine, \$5.00 English Pheasant, T. W. Fraine, 5.00 Black Grouse (Scotland), - T. W. Fraine, 6.50 Red Grouse (Scotland), - T. W. Fraine, 6.50 Ruffled Grouse (drumming), T. W. Fraine, 4.00 Quail, T. W. Fraine, 4.00 California Quail, T. W. Fraine, 5.00 Snipe, T. W. Fraine, 5.00 Red-breasted Teal, - T. W. Fraine, 6 oo Double-crested Hornbill (museum specimen), Wm. J. Critchley. Loaned
71. 72. 73. 74. 75. 76. 77. 80. 81. 82. 83. 84. 85.	Snowy Owl, F. S. Webster. Loaned by Mr. Burke. Buffle-headed Duck, - F. S. Webster. Loaned by Mr. Frank Ward. Caspian Tern (in full flight), F. S. Webster. Bonaparte Gull, F. S. Webster, \$5.00 English Pheasant, T. W. Fraine, 10.00 "" (half-albino), mounted on Bronze Stand, T.W. Fraine, 22.00 Black Grouse (Scotland), - T. W. Fraine, 6 50 Red Grouse (Goutland), - T. W. Fraine, 6 50 Ruffed Grouse (drumming), T. W. Fraine, 4.00 Quail, T. W. Fraine, 4.00 California Quail, T. W. Fraine, 3.00 Snipe, T. W. Fraine, 3.00 Red-breasted Teal, - T. W. Fraine, 6 60 Double-crested Hornbill (museum specimen), Wm. J. Critchley. Loaned by Prof Ward's Establishment, 18 00
71. 72. 73. 74. 75. 76. 77. 80. 81. 82. 83. 84. 85.	Snowy Owl, F. S. Webster. Loaned by Mr. Burke. Buffle-headed Duck, - F. S. Webster. Loaned by Mr. Frank Ward. Caspian Tern (in full flight), F. S. Webster. Bonaparte Gull, F. S. Webster, \$5.00 English Pheasant, T. W. Fraine, 10.00 " (half-albino), mounted on Bronze Stand, T.W. Fraine, 22.00 Black Grouse (Scotland), - T. W. Fraine, 6 50 Red Grouse (Scotland), - T. W. Fraine, 6 50 Ruffed Grouse (drumming), T. W. Fraine, 4.00 Quail, T. W. Fraine, 4.00 Quail, T. W. Fraine, 5.00 Snipe, T. W. Fraine, 5.00 Snipe, T. W. Fraine, 6 00 Red-breasted Teal, - T. W. Fraine, 6 00 Double-crested Hornbill (museum specimen), Wm. J. Critchley. Loaned by Prof Ward's Establishment, 18 00 King Vulture (museum specimen), Wm. J. Critchley Loaned by Prof
71. 72. 73. 74. 75. 76. 77. 78. 80. 81. 82. 83. 84. 85. 86.	Snowy Owl, F. S. Webster. Loaned by Mr. Burke. Buffle-headed Duck, - F. S. Webster. Loaned by Mr. Frank Ward. Caspian Tern (in full flight), F. S. Webster. Bonaparte Gull, F. S. Webster. English Pheasant, T. W. Fraine, 10.00 (half-albino), mounted on Bronze Stand, T.W. Fraine, 22.00 Black Grouse (Scotland), - T. W. Fraine, 8.50 Red Grouse (Scotland), - T. W. Fraine, 6.50 Ruffled Grouse (drumming), T. W. Fraine, 4.00 Quail, T. W. Fraine, 4.00 Quail, T. W. Fraine, 5.00 Snipe, T. W. Fraine, 5.00 Snipe, T. W. Fraine, 5.00 Snipe, T. W. Fraine, 6 oo Double-crested Hornbill (museum specimen), Wm. J. Critchley. Loaned by Prof Ward's Establishment, 16.00 King Vulture (museum specimen), Wm. J. Critchley Loaned by Prof Ward's Establishment,
71. 72. 73. 74. 75. 76 77. 78. 80 81 82 83. 84. 85. 86. 87.	Snowy Owl, F. S. Webster. Loaned by Mr. Burke. Buffle-headed Duck, - F. S. Webster. Loaned by Mr. Frank Ward. Caspian Tern (in full flight), F. S. Webster. Bonaparte Gull, F. S. Webster, \$5.00 English Pheasant, T. W. Fraine, 10.00 " (half-albino), mounted on Bronze Stand, T.W. Fraine, 22.00 Black Grouse (Scotland), - T. W. Fraine, 6 50 Red Grouse (Scotland), - T. W. Fraine, 6 50 Ruffed Grouse (drumming), T. W. Fraine, 4.00 Quail, T. W. Fraine, 4.00 Quail, T. W. Fraine, 5.00 Snipe, T. W. Fraine, 5.00 Snipe, T. W. Fraine, 6 00 Red-breasted Teal, - T. W. Fraine, 6 00 Double-crested Hornbill (museum specimen), Wm. J. Critchley. Loaned by Prof Ward's Establishment, 18 00 King Vulture (museum specimen), Wm. J. Critchley Loaned by Prof

Section 7—Single Reptiles.

90. Tortoise Shell Turtle, Wm. J. Critchley, Loaned by Prof. Ward. \$20.00 This animal furnishes the valuable tortoise shell of commerce.

Section 8-Single Fishes.

- 91. Trigger Fish, (Museum Specimen), Wm. T Hornaday, Loaned by Prof. Ward,
- Wm. T. Hornaday, -92. Yellow Pike, Medallion,
- 93. Cronorhinus dasypogon, Australian Shark, (Museum Specimen), Wm. T. Loaned by Prof. Ward, 125.00 Hornaday,
- 94. Trygon Sephen, Ceylon Ray, Wm. T. Hornaday, (Museum Specimen), Loaned by Prof Ward's Establishment.

Probably no one but the practical taxidermist will be able to understand or appreciate the difficulty which has been overcome in mounting this specimen and preserving the extreme flatness and thinness of its form. This demonstrates the value of clay as a filling material in all cases where it is necessary to secure thinness and also perfect smoothness.

Section 9-Heads.

- 95. Deer, Wm. T. Hornaday, - Loaned by Prof. Ward.
- Wm. T. Hornaday, - - -
- 97. Antelope, -
- Wm. T. Hornaday, Loaned by Prof. Ward.
 Wm. T. Hornaday, Loaned by Mr. J. M. Backus. 98. English Pug Dog, -
- 99. English Setter Dog, -Wm. T. Hornaday, - -
- 100. Prairie Wolf, Coyote, F. A. Lucas.
- 101. Monkey.-"I Should Smile," F. A. Lucas. Certificate of Merit at Exhibition of 1880.
- Oliver Davie. 102. Deer,

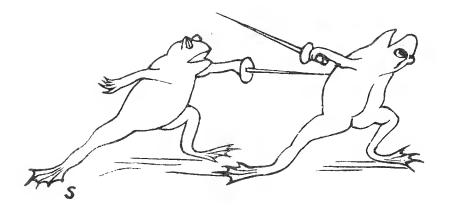
Section 10-Skins.

103. Series of 60 Bird Skins, A. G. R. Theobald, 104. Series of Bird Skins, -- Fred. T. Jencks, - For Sale. 105. Series of 50 Bird Skins, - S. F. Rathbun, For Sale.

Section 11—Groups of Crustaceans.

106. The Home of the Crab, C. E. DeKempeneer, \$20.00

This piece represents a section of the sea bottom with crabs of various species (8 specimens) n varions attitudes, surrounded by pretty shells, corals and corallines, growing on the sandy bottom.



CLASS B.—NOVELTIES IN TAXIDERMY.

Section 1.—Grotesque Groups and Animals Grotesquely Mounted.

107. The Rehearsal, - C. W. Graham, - - - (in case), \$18.00

An amateur orchestra, composed of squirrels rehearsing the last new piece, is so absorbed in the music as to be wholly unconscious of the frantic efforts of the leader to correct an apparent discord.

- 108. "Git Out!" (Frog and Alligator), C. W. Graham, (in case), \$10.00 An Explorer of the Florida Everglades too cordially welcomed by an old settler.
- 109. "I'll See You Later!" Bicyclists, (Frog and Squirrel),

C. W. Graham, - - (in case), \$6.50

- 110. Perseus and Andromeda, Frogs and Alligator, C. W. Graham, 8.00
- III. The First Snow! (Rabbit and Squirrels), C W. Graham, (in case), \$20 00

A rabbit harnessed to an old-fashioned, high-backed sleigh, driven by a squirrel who has his lady and cousin, Miss Chipmunk, snugly tucked in beside him, has overtaken and is rapidly passing a worn and seedy tramp who is wearily plodding along toward "Beechnut Hollow."

- II2. The Victor's Return, (Frog and Squirrels), C. W. Graham. (in case), \$8.00 The return of a successful General in the palmy days of Rome. In this group the ancient chariot and mode of attaching horses has been faithfully copied.
- 113. Voices of the Night, (Frogs), C. W. Graham, - \$5.00
 "Hail Gentle Spring! Ethereal Mildness, come!"
- 114. Harmony and Discord, (in two parts), Wm. J. Critchley, - \$25.00

These two groups go to show that there are mischievous, practical jokers in the cat family as well as in our own. Upon a bench, on the sunny side of a house, lie three kittens. Underneath the bench lies tabby, with eyes half shut, dreaming of mice, but little dreaming of the horrid spider which is slowly descending at the end of a string managed by a mischievous black kitten at an upper window. The spider descending suddenly at Tabby's nose causes her to elevate her back so suddenly and high that one end of the bench is lifted up bodily, and the kittens are tumbled into a pail of water which is standing at the other end.

115. Hamlet, (Toucan), Wm. J. Critchley, \$3.0	0
"And is this Yorick's skull? I knew him well, Horatio, a fellow of infinite jest, of most excellent fancy!"	;t
The Tale of a Cat, (Cat and Turtle), Frederic A. Lucas.	
rife. Part I. The Beginning,	
117. Part II. The End,	
118. The Old, Old Story, (Mottled Owls), Thos. W. Fraine - \$12.0	О
119. The Political Situation in Europe. A Drama in Two Acts.	
Jules F. D. Bailly,	
Act I. The Apparent, 10.0	
Act II. The Real, 100	0
The interpretation of this bit of pleasantry is left to each individual visitor.	
120. "Sold Again!" (Frogs), - Jules F. D. Bailly, \$5.0	О
Many of us have been a fishing, and most of us who have, can appreciate the situation depicte	d
in this group. Who has not hooked on to some big fish, and after raising it to the surface, foun	d
it resolved into stick or weed ?	
121. The Father of a Family, (Frogs), J. F. D. Bailly, \$3.5	О
122. A Rainy Day, (Frogs), J. F. D. Bailly, 2.5	
123. The Smoker, (Frog), J. F. D. Bailly, 3.0	o
124 Sitting for a Portrait, (Frogs), - J. F. D. Bailly, - 6.0	О
125. The Artist, (Frogs), J. F. D. Bailly, 6.0	O-
126. Game of Billiards, (Frogs), - J. F. D. Bailly, 6.0	0
127. The Pedagogue, (Frog), - J. F. D. Bailly, 3.0	О
128. The Accountant, (Frog), - J. F. D. Bailly, - 3.0	О
129. Wedding Bells, (Frog), - J. F. D. Bailly, 4.0	0
130. The Barber, (Frog), - J. F. D. Bailly, 4.0	О
131 An Affair of Honor, (Frogs), - J. F. D. Bailly, 40	
132. The Duelists, (Frogs), - J. F. D. Bailly, - 4.0	
133. Leap Frog, J. F. D. Bailly, 30	
134. Riding a Velocipede, (Frog), J. F. D. Bailly, - 4 o	
135. A Good Cigar, (Frog), J. F. D Bailly, 1.5 136. First Smoke, (Frog), J. F. D. Bailly, 1.5	
137. An Invalid, (Frog), - J. F. D. Bailly, Loane 138 Crossing the Brook, (Frogs), - J. F. D. Bailly,	а
Skating, (Frogs,) J. F. D. Bailly,	
D. I. W. D.	_
139. Part I. The Rise, 1.5	
141. Part III. The Decline, 1.5	
142. Euchred! (Squirrels, - J. F. D. Bailly, - 6.00	
143. Domino! (Squirrels), J. F. D. Bailly, 6.0	
144. Going to Church, (Squirrels), - J. F. D. Bailly, - 5.00	
145. Learning a Bad Habit, (Squirrels), J. F. D. Bailly, 2.5	
146. Wilhelmj, (Dressed Bird), J. F. D. Bailly, 6.0	
147. Lovers, (Kittens), J. F. D. Bailly, 6.0	

Section 2.—Articles of Use and Ornament.

0	TO 1 TO 1 M 1 11' TO A T
	Blue Egret Medallion, - F. A. Lucas, \$25.00
	White Egret Medallion, - F. A. Lucas, 25.00
	Oriole Medallion, F. A. Lucas, 5.00
-	Screech Owl Medallion F. A. Lucas, 6.50
	Humming Bird Panel, - F. A. Lucas, 20.00
153.	Horn Easy Chair, T W. Fraine, 65.00
	Mallard on Oak Panel, T. W. Fraine, 6.00
155.	Mallard on Oak Panel, - T. W. Fraine, 6.00
156.	Shoveler on Oak Panel, T. W. Fraine, 5.00
157.	Scaup Duck on Panel, - T. W. Fraine, 5.00
158.	Yellow-legged Plovers on Panel, T. W. Fraine, 6.00
159.	Woodcock and Snipe on Oak Panel, T. W. Fraine 6.00
	English Pheasant on Velvet Panel, T. W. Fraine, 17.00
	Buffle-head Duck, on Ebony Panel, T W Fraine, 5.00
	Canvas-back Duck on Gold and Ebony Panel, T W Fraine, - 8.00
	Red Grouse, (Scotland), on Oak Panel, - T. W. Fraine, 6.00
T64	Long-tailed Duck on Oak Panel, T. W. Fraine, 500
165	English Pheasant on Chestnut and Velvet Panel, T W Fraine, - 12.00
	Placque, Least Bittern, T. W. Fraine, 7.00
	Mottled Owl, (Gold Crescent Standard,) T. W. Fraine 6.00
	Mottled Owl. (Gold Crescent Standard), T. W. Fraine, 6.00
	Mottled Owl. (Gold Crescent Standard), T. W. Fraine, - 6.00
	Acadian Owl, (Mounted on Crescent, T. W. Fraine, 7.00
	Long-Eared Owl, (Mounted on Crescent, T W Fraine, 6.50
	7
	1 0000011 0010011)
174.	1 0400 041 10 040 041 1
175.	White Heron Screen, T W Fraine, 12.00
176.	Dining-room Panel Piece, (Quail and Snipe), E. L. Ormsbee, - 8.00
	Harlequin Duck on Maple and Gold Panel, - F S Webster, 10 00
178.	White Ibis, Medallion, - F. S. Webster, 40.00
179.	Scarlet Ibis, Medallion, F. S Webster, 45.00
180.	Snowy Heron, Medallion, - F. S. Webster, 45 00
	Snowy Heron, Medallion, - F. S Webster, 50.00
	Snowy Heron, Medallion, - F. S. Webster, 50.00
183.	Snowy Heron, Medallion, - F. S. Webster, 50.00
184.	Wood Duck, Medallion, - F. S. Webster, Loaned by Mr J. Siddons.
185.	Wood Duck, Medallion, F. S. Webster, \$35.00
186.	Wood Duck, Medallion, - F. S. Webster, 30.00
187.	Wood Duck, Medallion, F. S. Webster, 30.00
188.	Resplendent Trogon, Medallion, (on Stationary Screen,)
	F S. Webster, 85 00
189.	Resplendent Trogon, Medallion, F. S. Webster, 60.00
100	European Pheasant, Medallion, F S Webster, 35 00
101.	California Quail, Medallion, F. S. Webster, 8 00
102.	Humming Bird Screen, with Embroidery, (Gothic Frame),
,	F. S Webster, - 75.00

193 Humming Bird, Medallion, with painted background, F. S. Webster,	10 00
194 Combination Screen, (Peacock and Argus Pheasant, F. S. Webster,	50.00
195 Peacock Screen, F. S. Webster,	30 00
196. Owl Screen, F S Webster,	20.00
197 Small Peacock Screen, (Bronze Standard), F. S Webster, -	8 00
198. Small Peacock Screen, (Bronze Standard), F. S Webster,	8.00
199. Gold Stand with Deer Legs and Engraved Slab, F S Webster,	80.00
200 Panther, (3 days old), on Satin Mat, F. S. Webster,	7.00
201 Peacock Duster with Leopard-tail Handle, F. S Webster, -	3 50
202 California Quail on Gold Stand, F. S. Webster, -	12.00
203. Great Horned Owl, (Book Standard), F S. Webster, -	9 00
204. Great Horned Owl, (Book Standard), F. S. Webster,	
205. Barn Owl, (Carved Crescent Standard), F. S. Webster,	
206. Barn Owl, (Carved Crescent Standard.) F. S. Webster,	
207. Short Eared Owl, (Carved Crescent Standard), F. S. Webster,	- 8.00
208. Barn Owl Head, on Gothic Shield, F S. Webster,	2.50
209. White Heron Medallion, Wm J Critchley,	25.00
210. Crow Blackbird Medallion, - Wm. J. Critchley,	
211. Fan. (Spoonbill and Egret Feathers), Wm. J. Critchley, -	
212. Chicken on Penwiper, - Miss M E W. Jeffrey,	
213. Chicken on Penwiper, Miss M. E. W. Jeffrey, -	
214. Kitten on Penwiper, Miss M E W Jeffrey	
215. Kitten on Penwiper, Miss M. E W. Jeffrey	
216. Rug. Woodchuck with Head Mounted, Miss M. E W. Jeffrey,	
217. Leopard Skin Sleigh Rug with Head Mounted. W. T. Hornaday, -	
218. Bear Skin Rug with Head Mounted, W. T Hornaday,	- 35.00
219 Ottoman. Elephant's Foot, W T Hornaday, -	
220. Game Birds on Panels, Fred. T. Jencks, I	
221 Collection of Feather Work, - Fred. T. Jencks, I	For Sale.
222. Set of Fire Screens, Fred. T. Jencks.	

CLASS C.—ADJUNCTS TO TAXIDERMY.

	Section 1.—Taxidermist's Tools.
223	Geo Tieman & Co., 67 Chatham St., New York, N.Y.
	Section 2.—Glass Eyes.
225.	A L. Ellis & Co., Pawtucket, R I. Demuth Brothers, 89 Walker St., New York, N Y. Christian Hahn, 16 N. William St., New York, N Y.
	Section 3.—Artificial Leaves, &c.
	Maurice Gaupillot, 51 Bleeker St., New York, N Y. C. Pelletier, 135 Wooster St., New York, N.Y.
	Section 4.—Artificial Rock Work.
229.	Mrs. Wm Vick, Rochester, N Y. Set of Eight Specimens
	Section 5.—Perches.
230.	Frederic A. Lucas, Rochester, N.Y. Set of Perches showing various Museum Styles.

231. E. L. Ormsbee, Perches and general accessories in Exhibit No. 16.

SECRETARY'S GENERAL REPORT.

ROCHESTER, MARCH 24th, 1882.

The first business meeting of the present fiscal year was held in this city on Oct. 14th, 1881, at which fourteen persons were elected members of the Society. A set of Rules and Regulations for Exhibitions, which had previously been submitted to all the members of the Society by the Executive Committee, was adopted at this meeting without a dissenting vote, for permanent government, subject to such changes and amendments as may hereafter be found necessary. The Executive Committee, in conjunction with the Local Committee, was empowered to make all arrangements for the Boston Exhibition, according as the circumstances should require. The names of several gentlemen capable of acting as judges were listed, and it was agreed that any three of the number should be chosen who might find it agreeable to serve.

The Local Committee did not succeed in securing a hall for the Exhibition in Boston, and that duty had to be undertaken by the Executive Committee. At the critical moment the Rev. William Elgin very generously volunteered to go to Boston from New York and did so about the 20th of October. His mission, which was performed at great personal inconvenience and sacrifice, was eminently successful, inasmuch as he succeeded in securing Horticultural Hall as the place for our Exhibition, at a saving of \$100 from what the Society would otherwise have been obliged to pay. For this valuable service the Rev. Mr. Elgin is entitled to the best thanks of the Society.

The fact was developed that Horticultural Hall was the only hall in Boston in the least adapted, by size and location, for our purposes, and every effort was made to secure it from Nov. 21st. Owing to standing engagements the earliest possible date at which the hall could be placed at our disposal for ten days was Dec. 12, and there was no other way open. It was regretted that the Ex-

hibition should come so near the holidays, but under the circumstances it was unavoidable.

It was unanimously agreed that a large number of cards of invitation to the Opening Reception should be issued, and that the Exhibition should be liberally advertised, in order to guarantee its success. The hall was engaged for ten days, from Dec. 12th, at a rental of \$400.

Every effort was made, by about fifteen members, to fill the hall with exhibits, and all the shipments were on the ground in good season. Messrs. Lucas, Webster, Critchley and Hornaday went to Boston on Dec. 10th, and did very nearly the whole work of unpacking the exhibits, arranging them in the hall, and issuing the 350 cards of invitation to the Reception which were sent out.

The business of advertising was attended to by the Secretary, and consisted of standing advertisements in six newspapers for ten days, 100 large three-sheet posters, and 2000 half-sheet hangers for windows. Two thousand copies of the catalogue of the Exhibition were issued and copies were sold to visitors at ten cents each during the time the display was open to the public.

There was no hitch in any of the arrangements, and on the morning of Dec. 13th the hall was in perfect order; the specimens which were offered in competition were all carefully labeled in strict accordance with the Regulations, and the display was submitted to the judges, who made their examinations and prepared their report with closed doors, and in entire ignorance of competitors names.

The Society was fortimate in securing for judges, Mr. J. C. Beard, Artist of N. Y., Prof. J. W. P. Jenks, Naturalist, of Brown University, and Mr. Thomas H. Hinckley, Artist, of Milton, Mass. Their report gave general satisfaction, and their criticisms were of great value to the members. The list of awards was published in the newspapers, and a copy of the Boston Advertiser containing it, together with a catalogue of the Exhibition, was sent to every member of the Society.

By invitation of the Boston Society of Natural History, the Second General Meeting of the S. A. T. was held in the lecture room of the first named organization on Dec. 13th. President Scott made a brief address heartily congratulating the Society on

the inequalified success which had attended its course up to that time, and particularly upon the general character of the second Exhibition. A paper was read by Mr. Hornaday "On the Uses of Clay as a Filling Material;" one by Mr. Lineas entitled a "Critique on Museum Specimens;" and another by the first named gentleman on the "Mounting of Fishes for the Cabinet." The contents of the papers were discussed at some length by the President and the various members. Mr. Lucas gave notice that he would offer in time for publication in the Second Annual Report a paper embracing the Bibliography of Taxidermy, and an urgent call was made for additional titles of books and papers on Taxidermy. Mr. Webster also gave notice that he would prepare two articles for the report.

The following persons were elected members of the Society:

Corresponding Member—Walter Burton, London, England.

Active Members—Edwin A. Capen, Boston.

George D. Chapin, Syracuse, N. Y.

A resolution of thanks was adopted in acknowledgment of the courtesies extended by the Boston Society of Natural History, to the judges for their valuable services, to Prof. Henry A. Ward for his many substantial favors to the Society, and to General Loring for an invitation to visit the Boston Fine Art Museum accompanied by the necessary tickets. By a unanimous vote the judges were elected Honorary Members. A vote of thanks was extended to Prof. F. W. Putnam for an invitation to visit the Peabody Museum, and for many substantial favors to the Society.

Officers for the succeeding year were elected as follows:

President-Frederic A. Lucas.

Vice-President—F. S. Webster.

Secretary—Wm. T. Hornaday.

Treasurer—Fred. T. Jencks.

Executive Committee—C. W. Graham, Oliver Davie, P. W. Aldrich.

It was decided to hold the next General Meeting and Exhibition in New York.

The Opening Reception, for which about 350 cards had been issued, was held on the evening of Dec. 13, from 7 to 10 p. m., at which time all specimens were numbered, and catalogues distributed gratnitously. The Exhibition opened to the public on

Dec. 14th, and remained open daily except Sunday from 10 A. M. to 10 P. M. until Dec. 22d. Mr. C. W. Graham, of St. Johnsbury, Vt., came to Boston at the opening of the Exhibition, and remained until the close, rendering most valuable assistance throughout at the sacrifice of much time, and he also refused to accept any return for the expenses he incurred. President Scott remained in Boston until near the close of the Exhibition, and besides rendering valued service, insisted upon meeting all his own expenses, and also at a critical moment advanced to the Society \$50 in cash for general expenses. It would be highly ungrateful to ignore the fact that Mr. Lucas, in addition to preparing a large, attractive and costly exhibit, also advanced to the Society \$115 in cash, besides defraying his own expences in attending the Exhibition and doing the work of three men both before and after the Exhibition. The Society should never forget how much it owes to the disinterested kindness of Mr. Lucas. Prof. Scott and Mr. C. W. Graham.

The attendance during the Exhibition was not all that could be desired, which was due to circumstances wholly beyond the control of the Society. The press gave liberal and frequent notices, the advertising was wholly sufficient, but the Boston public did not manifest that interest in our art which the Society had so confidently expected to see. Whatever else may be said, the fact remains that the people of that city did not accord the Exhibition the support which it merited, and in our case almost wholly failed to manifest any of that interest in a fine art which we had every reason to expect would be shown in a city famous With but four or five exceptions the for its æstlietic tastes. sixteen professional taxidermists of Boston and vicinity treated the Society with the utmost coldness and suspicion, and refused to identify themselves with the movement. In this respect they have shown themselves wholly different from all other taxidermists who have ever come in contact with our Exhibitions or Committees, and their conduct was wholly without excuse or palliation.

Except financially, the Exhibition was a most gratifying and pronounced success every way considered. An elegant and commodious hall was completely filled with the choicest of specimens, nearly all of which were prepared expressly for that Exhibition, and as such displayed the best skill of the members they repre-

sented. The Exhibition contained no poor specimens, and the work showed a striking degree of improvement over that of the first Exhibition. The display elicited the highest praise from all visitors, and the judges in particular, which in a great measure compensated for its lack of financial success.

The Boston Exhibition finally closed on the evening of Dec. 22d, and the exhibits were immediately packed for return shipment.

The last business meeting of the second fiscal year was held in Rochester, N. Y., on March 24th, 1882, and was presided over by President elect Lucas. The Secretary's general report up to that date was read and adopted. The resignation of F. T. Jencks, Treasurer elect, was read, and by vote of the Society accepted. The Rev. Wm. Elgin was unanimously chosen to fill the vacancy. The Treasurer's report was read and approved. On account of a declared indebtedness on the part of the Society, the Treasurer was authorized to issue a circular to the members, setting forth the facts of the case, calling for the prompt payment of the yearly dues, and also for contributions to meet the more pressing obligations of the Society.

Three new members were elected.

WM. T. HORNADAY.

Report adopted.

Secretary.

TREASURER'S REPORT.

It is with much regret that I am obliged to report a considerable deficit at the end of the fiscal year. A deficit is always unpleasant, but in the present case it is doubly so, from the fact that it was hoped the Boston Exhibition would not only leave the Society out of debt, but with a balance in the treasury. Everything was done that could be done to render the Exhibition a success, and so far as reputation is concerned, the Society has reason to feel proud of it, as all visitors spoke in terms of the highest praise. The financial failure is neither the result of any lack of care on the part of the Executive Committee, nor is it owing to any mwarranted expenditures. Every effort was made to economize, and besides the Secretary, Messrs. Scott, Graham, Webster and Lucas, who were in attendance during the Exhibition, bore their The Exhibition was advertised daily in the own expenses. Advertiser, Globe, Herald, Post, Transcript, and Traveller, and in addition, by 100 large posters, 2,000 half-sheet hangers, and Fortunately the greater part of the Society's indebtedness is held by members, and if the annual dues are promptly paid, they will be sufficient to meet the outstanding It is much to be regretted that the deficit renders it, for the moment, impossible to furnish medals to those members to whom they were awarded. This is the more unfortunate as several were new members. Since March 26, 1882, dues and contributions from members of the Society have been received, sufficient to cancel the bill of the Express Printing Co. Prof. H. A. Ward, of Rochester, has kindly given \$13.65 towards the payment of the bill of Rochester Printing Co.

If the friends of the Society will only continue to stand by it in the future, as they have in the past, the present state of affairs will be of comparatively short duration, and I trust that another year will see the Society, if not entirely free from debt, at least a long way on the road towards it.

Respectfully submitted,

FREDERIC A. LUCAS,

ROCHESTER, N. Y., March 26, 1882.

Treasurer.

Treasurer's Report for the fiscal year ending March 26, 1882:

RECEIPTS.

Balance in Treasury at beginning of year, - \$ 6.75	
Returns from Exhibition, 1880, 7.60	
Admission fees and Annual Dues, 113.00	
Tiekets for Exhibition, of 1881, 319.50	
Sales of Catalogues, 34.30	
Commissions on Sales, 37.72	
Sales of Reports, 4.50	
Sundry Small Receipts, 1.78	
Contributions as follows:	
P. W. Aldrich, 2.00	
Anson C. Allen, 1.00	
J. F. D. Bailly, 7.00	
Wm. J. Critchley, 1.35	
Oliver Davie, 4.95	
Thos. W. Fraine, 5.00	
C. W. Graham, 20.00	
Wm. T. Hornaday, 67.43	
F. A. Lucas, 9.05	
Austin F. Park, 3.00	
S. F. Rathbun, 2.00	
Thos. Rowland, 2.00	
Prof. W. E. D. Scott, 30.00	
Wm. G. Smith, 5.00	
F. W. Spencer, 1.00	
Dr. Chas. R. Sumner, 3.00	
Wm. Vick, 5.00	
John Wallace, 1.00	
F. S. Webster, 5.72	
A. H. Wood, 2.00	
Frank S. Wright, 2.00	
Total receipts during the year \$701.65	
Total receipts during the year, - \$704.65	
EXPENDITURES.	
	<u>.</u>
Printing Report for 1881, \$ 46.7	
Photographs for Report, 14.0	
Engrossing Diplomas, 9.0	U

Circulars, 8 6.00
Expenses of President Scott at Rochester, 26.00
Expenses of Mr. Elgin to Boston and return, 9.10
2,000 Catalogues of Exhibition, 63.65
Printing 100 Posters and 2,000 Hangers, 25.00
10,000 Dodgers, 6.00
Posting and Distributing Bills, 29.00
Advertising in Daily Papers, 109.63
450 Reception Cards and Envelopes 10.00
Printing 500 Tickets, 4.25
Signs and Transparency, 5.50
Sundry Printing, 10.75 Postage, 18.24
Freight and Cartage for Society alone, 41.61
Rent of Horticultural Hall, 10 days, 400.00
Help at Boston, 52.10
Judges' Expenses, for Exhibition of 1881, 22.50
President's Expenses, on account of Boston Exhibition, 25.00
Secretary's Expenses, on account of Boston Exhibition, 23.12
Various Expenses During Year, 61.56
Total Expenditures, \$1018.76
Total Receipts, 704.65
Excess of Expenditures above Receipts, \$314.11
This deficit is shared as follows:
Frederic A. Lucas, \$115.00
W. E. D. Scott, 50.00
J. F. D. Bailly, 32.80
Thos. W. Fraine, 20.40
E. L. Ormsbee, 7.20
Rochester Printing Company, 63.65
Express Printing Company, 25.00
\$314.11

RESOLUTIONS PASSED.

At the Boston General Meeting, Dec. 14th, 1881, the following:

Offered by Mr. Webster:

Whereas, the Boston Society of Natural History has been pleased to recognize in a public manner the high objects which the Society of American Taxidermists is striving to attain, and has also extended to it a cordial invitation to visit the Library and Museum, and hold its General Meeting in the Lecture Room;

Resolved, that the Society of Taxidermists tenders its grateful acknowledgements and accepts with many thanks the privileges so courteously tendered.

Offered by Mr. Lucas:

Resolved, that the thanks of the Society be tendered the eminent gentlemen who have consented to honor it by acting as judges of its Second Exhibition at the sacrifice of their own valuable time and personal inconvenience,

And Furthermore, that Prof. J. W. P. Jencks, Mr. Thomas H. Hinckley and Mr. James C. Beard be elected honorary members of the Society.

Offered by Mr. Hornaday:

Resolved, that the Society takes pleasure in recording its grateful appreciation of the many substantial favors it has received at the hands of Prof. Henry A. Ward, who by his liberal patronage, encouragement and assistance, dating from the organization of the Society to the present time, has placed under obligations to him all those who are interested in the advancement of the taxidermic art.

Passed at the Meeting of March 24th, 1882.

Offered by Mr. Hornaday:

Resolved, that the thanks of the Society are due and are hereby tendered to

The Boston Advertiser,

The Boston Journal,

The Boston Transcript,

The Boston Post and

The Boston Globe,

for their kindness and liberality to the Society in the publication of frequent and extended notices of the Boston Exhibition, which were of the greatest importance to the success of the enterprise.

Report of Judges' Committee

AND

LIST OF AWARDS.*

HORTICULTURAL HALL, BOSTON, MASS., Dec. 14th, 1881.

The judges invited to act at the Second Annual Exhibition of the Society of American Taxidermists have the honor to submit the following report:

REGULAR PRIZES.

- I. Best pieces in entire exhibition, two Silver Specialty Medals.
- To G. [Wm. T. Hornaday] 46, African Monkey.
- To B. [Frederic S. Webster] 73, Caspian Tern.
- II. Second best piece in entire exhibition, Second Specialty Medal, Bronze.
- To Y. [P. W. Aldrich] 89, a Great Horned Owl (in a case with two snowy owls).
 - III. Best general exhibit, General Average Medal, Silver.

To G. [WM. T. HORNADAY]
$$\frac{Mammals}{46-44}$$
 $\frac{Birds \ and \ Reptiles}{4}$ $\frac{Fishes}{94-93}$

IV. Diplomas of Honor in Taxidermy Proper are awarded

- To F. [FRED. T. JENCKS] for pair Harlequin ducks, black-backed gull and woodcock.
- To A. [Thos. W. Fraine] for 32, case of Game Birds.
- To L. [Mr. & Mrs. Geo. H. Hedley] for general character of exhibit.
- To C. [Frederic A. Lucas] for general character of exhibit.
- To W. [OLIVER DAVIE] for group of peeps (sandpipers).
- To Y. [P. W. Aldrich] for two cases of birds.
- To M. [WM. J. CRITCHLEY] for Hornbill, 86, and Vulture, 87.

V. Certificates of Merit in Taxidermy Proper are awarded

- To R. [Josiah S. Tennent] for general character of exhibit.
- To H. [Nelson R. Wood] for Marsh Wrens [18],

^{*}This report was submitted while the judges were in entire ignorance of exhibitor's names; each competitor being designated by a letter only. Competitors names are here inserted for convenience, the report being otherwise ad literatim.

W. T. H.

SPECIAL AWARDS.

Bronze Medal for Best Miscellaneous Exhibit.

To B. [FREDERIC S. WEBSTER].

Bronze Medal for Reptiles.

To M. [W. J. CRITCHLEY] for 90, Turtle.

Bronze Medal for Fishes.

To G. [Wm. T. Hornaday] for 94, 93 and others.

Silver Medal for Heads.

To G. [WM. T. HORNADAY].

Silver Medal for [best Exhibit of] Articles of Ornament or Use. To B. [F. S. Webster].

Diploma of Honor for [handsomest] Single Article of Ornament or Use.

To B. [F. S. Webster] for Screen, of peacock, 195.

Certificate of Merit for second best Article of Ornament or Use. To B. [F. S. Webster] for Medallion, 181.

Bronze Medal for [best exhibit of] Grotesque Groups.* To S. [C. W. GRAHAM].

Diploma of Honor for Grotesque Groups.

TO M. [WM. J. CRITCHLEY].

Very respectfully submitted,

JAS. C. BEARD, J. W. P. JENCKS, THOS. H. HINCKLEY,

Judges,

Report of Society's Judges

ON

BIRD SKINS AND ACCESSORIES.

HORTICULTURAL HALL, BOSTON, MASS., Dec. 15th, 1881.

The Committee appointed from the Society, by the President, to report upon the Bird Skins and Accessories to Taxidermy in the Second Annual Exhibition, beg leave to submit the following list of awards:

Class A, Section 10, Bird Skins.+

To S. F. RATHBUN, Auburn, N. Y., Diploma of Honor. Collection marked 96 points.

^{*} The exhibit of Mr. J. F. D. Bailly was withheld from competition.

[†]The exhibit of Mr. Fred. T. Jeneks was withheld from competition.

To A. G. R. Theobald, Coimbatore, India, *Diploma of Honor* for Tropical Skins. Collection marked at 85 points.

Class C, Section 2, Glass Eyes.

- To A. L. Ellis & Co., Pawtucket, R. I., a *Diploma of Honor* for general excellence, and special mention for the extent, variety and elegance of their display.
- To Demutii Brothers, 89 Walker St., N. Y., a *Diploma of Honor* for Mammal Eyes of a superior quality.
- To Christian Hahn, 16½ North William St., New York, a Certificate of Merit for general excellence.

Class C, Section 4, Artificial Rock Work.

To Mrs. Wm. Vick, Certificate of Merit.

Class C, Section 5, Perches.

To E. L. Ormsbee, Certificate of Merit for imitation branch perch.

Remarks.—In submitting this report, the judges wish to make especial mention of two exhibits. The first of these is the series of sixty bird skins from Mr. A. G. R. Theobald of Coimbatore, India, which are not only good for any locality, but are decidedly the best East Indian bird skins we have ever seen, although many hundreds have come to this country from various collectors. It is hard for a collector in the temperate zone to understand the obstacles sometimes presented by the weather, but when the hot, moist climate of the East Indies is considered and the difficulty of making any skins, to say nothing of really good ones, the excellent quality of this exhibit can be better appreciated.

The second exhibit is the series of glass eyes from Demuth Bros., New York, the excellence of which is apparent, although the display could have been made up to much better advantage in arrangement. A good eye is an essential to a perfect specimen, and, in the case of eyes for mammals is a thing not always easily obtained. The mammal eyes of Messrs. Demuth—especially the Deer, Dog and Panther eyes—are of excellent quality and superior to any we have yet seen in the market, and we are glad to see so much pains taken in the manufacture of these important accessories. We will add in conclusion that we have yet to see a good fish eye, and a deer eye that is a perfect counterfeit in shape and color of the organ as made by nature.

We take pleasure in calling attention to the exhibit of Glass Eyes made by A. L. Ellis & Co., as being a model of its kind. It is very extensive and complete, fully labelled, and the arrangement is perfection itself.

Respectfully submitted,

F. T. JENCKS, F. S. WEBSTER, FREDERIC A. LUCAS, WM. T. HORNADAY,

Judges.

PAPERS READ.

ON THE USES OF CLAY AS A FILLING MATERIAL.

BY WILLIAM T. HORNADAY.

I desire to call the attention of the Society to the extreme desirability of using plastic filling materials under certain circumstances to be hereinafter illustrated. Experience has shown me that, in many cases, when it is necessary to reproduce the exact size and shape of the living animal's features, line for line, and to obtain the exact expression which is desired, it is absolutely necessary to use other than fibrous filling materials. The almost universal custom of taxidermists in mounting heads of mammals is to fill them with chopped tow and no other substance. When the skin under treatment is badly shrunken, below its natural size, it must be vigorously stretched in filling. and for this purpose nothing is equal to tow, which, when tightly packed inside a skin, has a tendency to expand and keep the skin stretched to its proper proportions. In such cases as the above, no soft plastic material will answer the purpose, and tow must be used, even though it be at the loss of the more delicate points on the animal.

There are, however, many cases in which clay can not only be used to great advantage, but the use of any elastic fibrous material is a positive mistake. In proof of this assertion I will cite two examples. The head of a full-blood bull-dog possesses very strongly marked features which must be reproduced with exactitude or the work is a conspicuous failure. But how, I ask, can all the deep wrinkles, the pendant flabby lips, and all those complicated hollows and elevations of surface be reproduced by using tow for filling, the tendency of which is to expand in all direct-

ions? Is it *possible* to reproduce all these features without using some material which can be moulded at will, which works easily and kindly, and, above all, which when once placed will forever retain the exact form which has been imparted to it?

My second example will be a common skate or sting ray, fresh from the ocean. In this we have an animal nearly round, of a very flat appearance, and with a skin which is thin and smooth. The body is, we will say, two feet in diameter, only three inches in thickness at the centre, from whence its thickness rapidly decreases outwardly until half way from the centre the body is only half an inch in thickness, and the marginal portion is merely two thicknesses of skin. When once skinned this animal could easily be stuffed to resemble a large round ball, and with fibrous filling it is certain to attain about twice its normal thickness. If anyone thinks it possible to fill one of these animals with fibrous filling and make it assume and retain the size and shape it possessed when in the flesh, I ask him to try the experiment and exhibit the result. Of a surety the result will be an animal which is puffed up to nearly twice its proper size, not smooth on the upper surface, and with the boundary line between art and nature very sharply drawn near the outer margin of the body. By filling with clay the body can easily be made quite as thin as desired and also perfectly smooth, from which, so far as the clay filling is concerned, there will be no departure.

The subject may be briefly formulated as follows:

First. When the skin under treatment is shrunken smaller than its natural proportions, clay cannot be used, but must give place to tow or other fibrous material which is elastic and can be packed tightly to stretch the skin to its true proportions.

Second. When there is such an abundance of loose skin that the filling of it all would manifestly exceed the proportions of life, or, when the subject must be worked into features of flatness, flabbiness, wrinkles, hollows or elevations, then a plastic filling material must be used.

In order to still more clearly indicate the occasions when I consider it advisable to use clay, I will attempt to divide them into three classes, namely:

1st. Filling for entire animals, such as very small mammals, small fishes of all kinds, all flat-bodied fishes such as rays and soles, and snakes generally.

2nd. For parts of animals, requiring extreme flatness, such as fins and tails of sharks, flippers, feet and legs of turtles, flippers of seals and sea lions, porpoises, etc.

3rd. For parts of animals, requiring marked peculiarities of form or expression, such as hands, feet and chest muscles of the great apes; trunk of elephant; nose of moose, tapir and hog; entire head of the horse, dog, ape, monkey, and all the Felidæ; * and the month and nose portions of all large mammal heads.

Clay possesses many advantages over every other plastic material that I have tried for filling. Plaster paris solidifies so quickly that it is impossible to use it. Putty cannot be worked to and fro beneath a skin, does not retain the exact form which may be given it, it is too oily, requires far too long a time to harden, and is also too costly. Papier maché is better than either of the above, but when used in large quantities it dries very slowly, is very apt to have a sour, disagreeable odor, and furthermore it is very troublesome to prepare and keep on hand as compared with clay.

The clay I use is common potter's material, which can be purchased at any pottery for from 1 to 2 cents per pound. In some respects it is better for the purposes of the taxidermist than the finer white clay which is commonly used in modeling, but in the absence of the former the latter can be used. In order to give great solidity and toughness to clay, when dry, I always mix with it a good quantity of finely chopped tow which is perfectly clean and free from sticks or woody fibre. A little experimenting will soon enable anyone to see how the clay should be prepared to work easiest.

The advantages of using clay are as follows: It is very cheap, easily obtained, can be kept for any length of time by keeping the mass wet, it works easily beneath a skin into any form. It dries quickly even when in a large mass inside a skin by exposing the animal in a dry atmosphere, but on the other hand the same

^{*}It is of course to be understood that in mounting a head the clay is to be used upon the skull, to exactly replace the flesh, and is the only filling to be used between the skin and the skull. Before drawing the skin over the skull, cover the latter with soft clay until it exhibits the same form and size it possessed before it was denuded of flesh. A considerable mass of clay will be required to build up the thick muscles of the cheek and the end of the nose, but on all ruminant animals, a very thin layer is all that is necessary on the forehead and along the muzzle. The flesh of the lips is also replaced with clay, and when this admirable material is used it is quite unnecessary to put any wires inside the lips. Clay alone is amply sufficient. After the lips are formed with clay, press them into place, and if the head has been properly shaped there will be no tension to draw them apart. When once dry they will be as hard and immovable as though carved ont of wood.

mass of clay can be kept soft for many days by keeping the skin which covers it wrapped in wet cloths and thoroughly moist. It retains its form without any expanding or contracting, is very hard and solid when dry, but can be softened at any time if it is desired to change any particular feature. It is easily washed out of hair without leaving the slightest stain in the finest and whitest coat, and it contains no chemical property calculated to damage or destroy a skin.

The general use of potters' clay as indicated above cannot fail to show a marked improvement in certain important points of taxidermic work, and which I believe cannot so easily or so well be attained in any other way, if indeed they can at all.

A CRITIQUE ON MUSEUM SPECIMENS.

BY FREDERIC A. LUCAS.

If one were asked to define the purposes of Museums of Natural History, he might very likely reply that they were for the preservation of natural objects, their study, and for the instruction of the public by the exhibition of such objects.*

Now, it is only a very small portion of the last part of this definition that I propose to discuss, for although there are many things that I would like to dwell upon, I feel that they would be entirely out of place in an article on taxidermy, and will merely say that what Museums are and what they should be are quite as different as a dictionary and an encyclopædia. The particular points, to which I wish to call attention and which it seems to me might be changed for the better, is the style of mounting of birds and mammals as generally seen in Museums. At first upon entering a Museum we are a little dazzled by the number of animals, but as this feeling wears away we notice that there is somehow a certain air of monotony about them all. Nine tenths, or more, of the Carnivores have their mouths wide open, and are trying to look fierce without having any adequate cause for so doing, and without, in the least, showing their emotion by their attitude.

^{*} The primary object of a museum is to provide the student with material for his researches.

Just here, someone who has divined our thoughts tells us that it gives them character to have their months open, and enables their dentition to be studied. On the contrary it takes away from their character, for animals—unless yawning—rarely open their months without accompanying the action with an equally expressive movement of the limbs. As for dentition, who knows but what the taxidermist has changed the original skull for that of another and different animal, to say nothing of the fact that many of the teeth are more or less hidden by the lips and tongue. Moreover every Museum has, or should have, collections of skulls from which the dentition could be easily studied. Mammals other than Carnivores are suffered to close their mouths, but are rarely permitted to assume any other than a walking attitude. But as the greater portion of a collection necessarily consists of birds, and as they will perhaps illustrate my ideas better than any other animals, we will leave the mammals and pass onwards.

The birds we find arranged in serried ranks and look as if the greater part had been turned after a model by an eccentric lathe. Let anyone glance at the smaller birds in the American Museum of Natural History, in New York, and he will see this in its perfection.

Of course the taxidermist is somewhat to blame for this monotony, but then he is sadly hampered by the turned T-perch, so universally used in our Museums. Let anyone mount consecutively one hundred birds with closed wings on plain perches, and he will realize the difficulty of giving them a variety of attitude, and long for a little change. But, as a high authority (Dr. Cones) tells us, "museum birds are for study, and 'spread eagle' styles of mounting, artificial rocks and flowers, etc., are entirely out of place in a collection of any scientific pretensions or designed for popular instruction."

Now, the mere fact that Museums are for popular instruction is a reason why the animals contained in them should be so arranged as to exhibit as many as possible of their most striking peculiarities and characteristics, and in order to do this some latitude in mounting must be permitted, and so far as is possible, an approach made to their natural surroundings. The Humming Bird should hover over a flower, the Woodpecker climb the side of a tree in search of food, and the Goatsucker should sit lengthwise of a bough or hang suspended with outstretched wings

and gaping mouth, as if in chase of insects. Don't stand every Penguin bolt upright, but have one scrambling on all fours down a rocky ledge, and let at least one Stork assume his characteristic attitude when at rest and sit with tarsi flat on the ground, wings drooped and bill pointing downward. Note on an Albatross with spread pinions, that this bird flies for days at a time with barely a few minutes rest, and you draw attention to the fact that long narrow wings are best adapted for long continued flight. In short, let each bird, so far as practicable, be mounted in an appropriate attitude and teach some fact in its life history.

A dozen Herons mounted in commonplace attitudes on plain stands are passed hastily by, but group them artistically and they become a study. Let one stalk cantiously along with outstretched neck, another preen his plumes, a third watch for prey with head slightly turned and neck drawn back ready to strike, while a fourth poised on one leg, head upon his shoulders forms a contrast to his neighbor who with bill in the air, stiffly extended neck and perpendicularly raised body assumes that likeness to a stump which is one of the Heron's modes of protection. this picture and on this" and tell me which is better suited for popular instruction or scientific teaching? Of course too many "spread eagle" attitudes could not be indulged in on the ground of lack of room, but a few are positively necessary, and as a few carefully selected books are worth more than a hundred taken at hap hazard, so a small number of well displayed specimens is of more value than a large collection of poor material.

In many birds the wings are marked with brilliant colors, or curious figures which are completely hidden when the wings are closed, and should be freely placed in such attitudes as would permit the wings to be wholly or partially opened and allow the beauties of the bird to be disclosed. These specimens are not only attractive, but they are actually better for scientific purposes. And just here let us consider the necessity of making a museum attractive to the general public. We are continually told of the great desirability of general scientific instruction, and yet, as our Museums are arranged they are rather for the benefit of those who already have some scientific knowledge than for the purpose of creating an interest in nature among the general public.

Ninety nine visitors in a hundred go to a Museum with no definite purpose, and come away with nothing more than a gen-

eral impression that there are a great many curious animals in Of their natural surroundings, varied attitudes, the world. curious habits, food and mode of procuring it, they have learned absolutely nothing, and feel no great interest in visiting the collections again. Now, if the interest of these, the great majority of visitors, can be aroused they will re-visit the Museum, and gradually gain some idea of its purposes, and appreciate the fact that it is something more than a mere collection of animals. And to arouse this general interest, which is so conducive to the much needed popular support of our Museums, there seems, to me, no better way than to improve in the style of Taxidermy. Gray's Hand List is an invaluable book, but hardly adapted for popular reading, and most of our Museums are too much like Gray's Hand List. There is a fashion in everything, even in Museums, and most of our scientists have become so used to the ordinary style of collections that it seems heterodox to depart from it. Two Museums, however, have ventured to depart from the beaten track, and one of these, at least, lays claim to some "scientific pretension." I refer to the British Museum, where the animals are now being arranged with great care as to naturalness of attitude and surroundings, and where such attention is given to accessories that as high as \$10 has been paid for one artificial flower. The other Museum is that of Princeton College, under the charge of Mr. Scott, who allows no turned perches in the collection, and insists that the birds shall have as striking attitudes as possible. In fact, if I were to make a criticism it would be that in many cases the attitudes are exceptional and such as would rarely be assumed. The general effect is, however, excellent, and though many of the positions are odd, the eye never becomes wearied by a constant repetition of a given form. Let us hope that this rejection of a formal perch and adoption of varied and striking poses may be followed by other institutions.

A NEW AND EASY METHOD OF MOUNTING FISH MEDALLIONS.

BY WM. T. HORNADAY.

Judging from specimens generally, it would seem that taxidermists, the world over, either do not know how to mount fish specimens with the same degree of excellence as mammals and birds, or else they are universally slighted by intention. it is, that in nearly every large zoological museum, the stuffed fishes are the least attractive, and the least like life of all the vertebrates. In many instances the Reptiles are not far behind in unsightliness, although as a rule they are a little more life-like than the fishes. In only one natural history museum out of twenty-seven have I found a collection of stuffed fishes which surpassed in number and quality of specimens the collection of birds and mammals, and formed the most attractive feature of the entire museum. That fish collection is to be seen in the Government Museum. at Madras, India, and I have reason to believe it is at present the finest of its kind in existance. The collection consists of a very general assortment of specimens from the Indian Ocean, and particularly from the Coromandel Coast, and besides a large number of small specimens it also contains as many large sharks, Rhynobatida and rays as the authorities have been able to obtain without duplicating the species.

The specimens were all mounted while fresh from the ocean, which, of course, has been a great advantage to the taxidermist. I was somewhat surprised to learn that the taxidermist in question was an Indian native, named P. Anthony Pillay, because East Indian natives of all classes are almost without exception very bad taxidermists. Upon being introduced to Mr. Pillay, an old Mohammedan gentleman with a long white beard, dressed in the style of his class, he very obligingly explained to me his method of mounting fish of all kinds.

In the first place, none of his specimens are mounted on standards, but either lie flat in table cases, or, if too large for that, hang against the wall. The common scaly fishes always lie upon one side, usually the right, with tail curved upward.

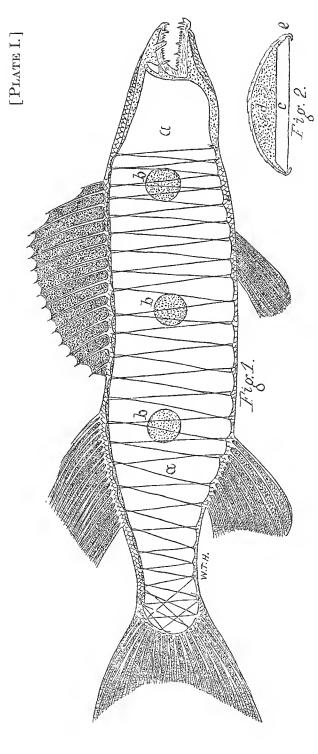


Fig. 1.—Medallion of Yellow Pike, (No. 92), Back View. a. a. back board. b. b. b. b. drying holes. Fig. 2.—Cross section of Medallion. c. back board. d. clay. e. skin of fish.



Before skinning a fish, Mr. Pillay always covered the whole of it with a sheet of soft paper gummed on firmly. drew a line along the middle of one side, and with pen and ink made a number of marks across it, so that after being cut open the edges could once more be drawn together exactly as they After skinning the fish and applying arsenical soap, were before. it was filled with raw cotton, of a kind known as silk cotton, plucked from the pod and cleaned by hand. This cotton more nearly resembles down in fineness and softness, than the longfibered cotton batting we are able to buy. Mr. Pillay assured me that the exquisite smoothness of his specimens was due to the use of silk cotton alone, and not to any secret process. sharks were very life-like in every respect, but his rays and raylike Rhynobatii were somewhat faulty. Being filled with loose, or fibrous filling, they of course lacked that extreme flatness so characteristic of the fishes of this type.

Usually fish specimens, both large and small, are opened underneath the body from head to tail, filled with soft filling around a piece of wood in the body, and mounted entire, on either one or two brass standards which are screwed or driven into the wood inside the fish and fastened into a pedestal below. Such specimens are usually mounted as high above the bottom of the pedestal as would be equal to half the width of the specimen, often more, and in this way much valuable space is taken up unnecessarily, or in other words with no real advantage to the specimen. In mounting a whole fish the liability to distort its shape is, of course, twice as great as it would be were only one-Again, it takes twice as long to skin and half of it taken. mount a whole fish as it would to mount half of the same, in addition to the necessity for standards. In view of the above important facts, added to that of the greater difficulty experienced in mounting a whole fish than with the half only, I submit the proposition that it is more advisable, from the standpoint of the taxidermist, to mount half fishes only, or fish medallions.

A fish in medallion may be lain upon the bottom of a table case or fastened to the back of an upright case, or fastened upon a thin board which may be hung upon the wall at pleasure, and also framed if desired. In any of these situations the specimen may very easily be provided with a background of fine tinted card board, glued to the wood, of the proper color to harmonize

with the colors of the fish, and show them to the best advantage. In view of the above facts and also that half fishes can be placed in a variety of situations to suit the requirements of the case, that they greatly economize room, and that each specimen can have the background best suited to its colors, thereby making it an attractive specimen, I submit the proposition that, from the standpoint of the ichthyologist and enrator, medallion fishes are in most cases more desirable than whole specimens.

My method of mounting a fish medallion, or half a fish, is as follows: Supposing we have a specimen in the flesh, or entire in alcohol, I cut the fish in two, dividing the skin along the middle of back and abdomen, and sawing through the bones of the head with a fine saw. Of course the caudal, ventral and dorsal fins must be left upon the half of the fish which is to be mount-Procuring a thin board of tough wood, I lay the half fish upon it, placing it precisely as I intend it to be when mounted, and mark around it with a pencil. It is then easy to cut out the board in the shape of the fish, and bevel down the edge on the side which is uppermost, but taking care to not alter the ontline at the back. Three or four holes may be made in a line along the middle of the board to allow the clay to dry rapidly. half of the fish is then skinned, cleaned carefully and anointed with arsenical soap. I next cover with soft clay and tow mixed together, the board which is to form the back of my fish, and work it into the precise form and size of my half fish when in the I then lay the skin upon it, press it firmly down until the clay adheres to it and no air bubbles remain underneath, and sew the upper and lower edges of the skin together across the back of the board which gives the fish its outline. The head must be stuffed with clay also, the mouth put in shape and fastened, the eye set, the fins properly spread and pinned down, and the specimen is fastened upon a wide flat board by two screws put through it into the back-board of the fish. Finally a coat of white varnish and turpentine is applied to keep the scales from curling up at the edges in drying, and the specimen is ready to put away to dry. The process is completed in much less time and with much less difficulty than is occupied in mounting a whole specimen of the same size, and furthermore while the half specimen costs but little (if any) more than half as much, it occupies less room and is more easily provided with a permenant resting place. It is also

more correct in form and far handsomer to look at than it could possibly be mounted on standards in its entireity.

Owing to the fact that fish collections are more rare than zoological collections of almost any other kind, and even those that do exist are, as a rule, not very attractive, and believing that the little interest taken in ichthyology generally is partly due to the fact that few know how to mount fishes so that they may be beautiful objects to the eye of the naturalist or sportsman, I submit the above method with the hope that its simplicity and efficacy may lead the amateur to make attractive collections of the finny tribes and study their natural history.

ON THE PLACING AND WINDING OF BIRDS' FEATHERS.

BY FREDERIC S. WEBSTER.

There are many methods of mounting and winding birds, all of which I have at different times tried, and in this article desire to give my experience and the conclusions drawn from a period of many years.

It must be first understood, that most methods are subject to some modification and variation in their application, and this is true of the method I adopt. I find that I can produce a far better bird by it than any other known to me.

Of course, it is easier applied to a specimen that is mounted with a body, than one with soft filling. As I use either method as the condition of skin, size of specimen, and attitude requires, I do not hesitate in saying that if the soft material (generally tow) is packed quite solid the pins or "hook-wires" will bear considerable strain of the thread before lopping over to one side, thus crowding the feathers out of place. The amateur must pay particular attention to filling out the specimen evenly, and not get more tow on one side than the other, also to fill the bird in such a way that the feathers are not bunched up or unevenly crowded

together, or it will be necessary to apply too much pressure of the thread to bring them down smoothly, and an unexpected evil will arise when the bird is finished and the threads and wires are cut off, viz. the crowded tufts of feathers will, immediately in some cases, or in others soon after, spring up out of place.

The secret in making a smooth bird lies in this fact, viz; that the root of EVERY feather must have a cushion to lie against inside the skin, which is procured by an even filling. Then when the thread is brought to bear on the feathers they will be influenced at the base or root, and when the skin dries it will hold them in place. This is why the short stubby tufts over the wings are so difficult to bring down smoothly. They can not be stuffed out, for they have an extra curve and are made to round out over the shoulder of the wing.

It is now necessary to go back, and state how, and of what, I make my bodies. I prefer above all, a solid body, one not too hard, made of "excelsior." This material is simply wood fiber, and is made by a machine invented for the purpose, and can be bought for a few cents per pound. The fiber varies somewhat in quality. For small birds a very coarse tow is best; the small pins or wires pass readily through the feathers and skin and enter the body, and as many can be stuck into the bird as is necessary to hold the thread for binding or winding the bird. The number of hook-wires vary according to the size of the bird, and the stubborness or stiffness of the feathers. The usual number employed to enable one to properly wind a bird is from five to eight, and are of the following shape (see Plate II, fig. 5) and vary in These hook-wires are easily made as follows: Having filed to a SHARP point six wires, take a pair of round pliers, place the several wires side by side in the jaws and with two movements the wires can be shaped as shown, all alike and with the same For birds below the size of a Golden-winged Woodpecker, strong insect or common pins will answer. The office of the hook-wire is to keep the thread away from the feathers when no pressure is required to bring them in their proper place. To make the pins efficient as an agent I employ this simple device: take a few inches of thread, wax it, and after the pins are stuck in their proper places (which will be spoken of later on) take the thread and by making one loop around the pin (see plate, fig. 4) draw it tightly and cut the ends off. The waxed thread will

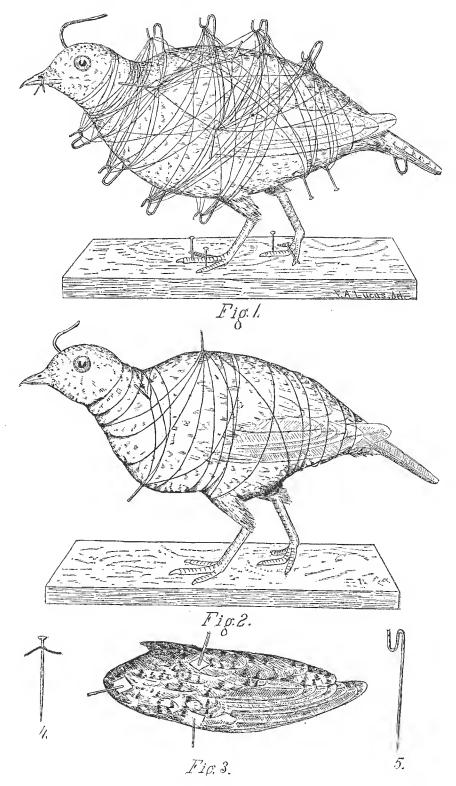


Fig. 1.—A bird properly wound, showing the manner of adjusting hookwires, and winding.

Fig. 2.—A bird badly wound.

Fig. 3.—Shows the wing with number of wires, the angles of entrance, and adjustment, and the card pieces, to keep the thread from sinking in the feathers.

Fig. 4.—Pin with thread shoulder.

Fig. 5.—Hook-wire, for holding thread.

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easily remain in place on the pins and not slide down. This will serve as a shoulder for the winding thread to rest on, and in this way all the pressure necessary to bring the feathers to a good outline will be easily secured.

Nearly every taxidermist employs some means of binding a bird's feathers, but very few seem to know how essential it is to properly attend to it. Much of the smoothness depends upon this, and in no other way can an artistic outline be secured. Too much stress can not be brought to bear upon the necessity of the employment of a sufficient number of wires or pins, and their proper adjustment in the different parts of the body.

I have never seen in any taxidermist's unfinished pieces, what I consider a sufficient number of wires. Usually one is placed in the back and one in the belly, and these often without a hook on the end. If a bird is to have a natural shape it is absolutely necessary to employ at least seven or eight wires, and they should be adjusted in the body as in the accompanying cut (see fig. 1 and 3) which will show the efficient and inefficient manner of arrangement. To secure the wings to the body three wires are required to each wing, which should be secured as follows: Grasp the shoulder of the wing with one hand and with the other force a wire about an inch and a half through it, just at a point where there is a small space between the radius and ulna, close to the forearm. point is the best place, as it neither separates the primaries nor gives the wing an ugly twist when placed against the body, and further it allows the wing to be easily brought forward or pushed backwards after it is wired to the body.

The wire is now supposed to be sticking through the wing. Adjust the wing in the proper place, not too low down on the side of the bird, which is a general fault, or too far back which is equally bad. There is a troublesome spot just at the shoulder of the wing, and is at best a difficult matter to overcome, viz; a tuft of feathers which insists on puffing out, or sticking up or down, and generally gives the beginner a great deal of annoyance.

This is usually caused by the filling being crowded into a spot that should have none at all, but on the contrary puckered in. The idea of the amateur is, that it can be made smooth by spreading it out, which is a great mistake.

The bare space begins at a point just over the wing, where the humerus comes against the body (at the elbow) and runs up the back in front of the wing and along the side of the neck. This skin must be sewed over and over, and drawn nearly together, which will generally obviate the trouble and when the wing has the first wire in it and is put against the body, it will be found to fit nicely and the feathers will lie smoothly. Sometimes in a bad skin these tufts must be cut out entirely, and replaced feather by feather.

We have the wing yet in our hand at a point where the troublesome tuft of feathers was, but which has been drawn up over the wing and now allows the wing to pass under it and fall uicely into place, providing the skin is not very dry and brittle. Now slant the blunt end of the wire in your hand forward and slightly up, and push it into the body. The next wire is to go through the spurious or first quills and should slant up toward the back of the bird when pushed in.

The third should go between the radius and ulna at the elbow and also slant slightly, so that the three wires enter the body at different angles. The wing is thus prevented from slipping off of the wires after they are cut close to it when the specimen is finished. The three wing wires are to each have a small piece of thin card board slid on to them, and pressed down to the wing, which will thus prevent the thread from sliding down the wires and making a hollow in the feathers. It is often necessary to apply considerable pressure to the wings in order to bring them into place.

The other wing is to be adjusted in the same way. Arrange both wings alike which can only be done by looking at the bird from all sides. The wings of a bird when at rest should always be alike, unless the bird is standing upon one foot, and then the wing which is on the standing side is slightly drooped, and out a little from the body. In fact the whole bird is moved to one side and the standing leg is in this way brought under the center of the body. After the wings are wired and adjusted the next thing is to place three or four wires in the back, in an imaginary lateral line running down the back, along which put the wires as shown in the cut. The same line should be observed in the breast and belly, and the wires put immediately under those placed in the back. By this means you have divided your bird in equal halves, and will thus be enabled to wind both sides

alike, the wires serving as a guide. The thread can be brought down with the required pressure as the feathers demand and if the bird has been properly filled and the entire interior mechanical work made uniform there will be no difficulty in making a smooth and well shaped bird.

Now, suppose we have all the back and belly wires adjusted and ready to wind. One end of the thread is fastened to a wire, and the threads brought down on the wings, first rounding them out neatly and somewhat full in the outline. Both wings should have the same number of threads and generally in the same places. Then the outline of the back is brought out, then the belly and breast, then the neck with its double and single curves, then the head is wound, if necessary, and more pins used to support the thread and keep it from pressing down where not required. Lastly the rump is wound, and should any of the feathers of either place be stubborn, take pins and thin card board and bring them in place. Very often the feathers in front and at the sides and between the legs trouble one. This is due to many causes. One of the principal ones is the improper disposition of the legs, that is to say, where they enter the body. The tibia bone must in nearly every case be half cut away, and the skin of the leg slid down on it so that the artificial leg comes close to the well formed artificial body, which must not be made too wide, or difficulty will be experienced.

Should the legs be too long and not placed in the body at the correct angle, the feathers of the legs and those immediately in front of them will stand out and not lie smoothly.

One of the best teachers I can recommend is a dead bird, a quail or similar bird whose feather-patches are equally well defined. Take it and with close study examine the manner in which the feathers fold over and cover the bare spaces. Move the legs, wings and neck in every direction, and observe the nice adaptation of each part and you will soon learn the way the feathers must always be adjusted in order to have them lie smooth and even.

The last thing is to place and spread the tail by pinning two strips of card board together, with several pins, and separating the quills as they require.

Birds of different orders differ in the quantity and quality of feathers and their disposition. Many birds have feathers of a scale-like nature, which are easily made smooth. Others are of hair-like texture, are not so easy to arrange, and do not remain smooth at any time, even when the birds are living. But these directions apply reasonably to any species that will be likely to come within the reader's experience.

Two illustrations are given (Plate II, figs. 1 and 2), to show the results of winding the same bird properly and improperly; the difference is due entirely to the way the pin hooks are placed, the number employed and the way the threads rest on the specimen. The great difference can be seen at once, by the most inexperienced eye.

It must be understood that these directions are given in the order of their application from the time the bird is placed on its feet until the toes are pinned, the bill tied, and the eyes set. In winding my birds I use the spools of cotton obtained from the cotton mills, technically called cops. It is very cheap, lasts a long time, is a soft, yielding thread and can be placed on the lightest feather very neatly. For large birds, common coarse thread or shoe-maker's flax is the best. A few cuts with the scissors will clear the threads from the specimen; pull the wires out of the back and breast, cut off those in the wings and the bird is ready for its final touches.

BIBLIOGRAPHY OF TAXIDERMY.

So far as I am aware no one has before attempted to compile a list of the works pertaining to taxidermy, and although I am aware how meagre the subjoined list is, yet it is submitted as the beginning of a bibliography of taxidermy. I am indebted to Messrs. Lee & Shepard for copies of their works and also to several of my friends for the titles of others. As it is my purpose to continue this subject I shall be greatly obliged to anyone who will kindly send me the full title of any work or shorter article on the subject of Taxidermy.

FREDERIC A. LUCAS, NATIONAL MUSEUM, WASHINGTON, D. C.

Taxidermy | with the | Biography of Zoologists | and notices of their works | by | William Swainson, A. C. G., F. R. S. | London | 1840. 12mo., 392; ents.

Manuels—Roret. | Nouveau Manuel Complet | du | Naturaliste | Preparateur | on | l'Art d'Empailler les Animaux, de Conserver les Végétaux | et les Mineraux, de Préparer les Pieces d'Anatonnie | Normale et Pathologique; | suivi | d'un Traite des Embauments | Par M. Boitard, | Chevalier de la Legion d'Honneur, Membre de Plusieurs Sociétés | Savantes, Nationales et Etrangerès. | Nouvelle Edition. | Ouvrage orné de planches. | Paris | à la Librairie Encyclopédique de Roret, | Rue Hautefeuille, 12. | 1859. 24mo., 498 pp.; 5 folding plates.

Traite Pratique | du | Naturaliste | Preparateur | par | Arthur E'loffe | Paris | Ch. Albesard et Bérard, lib.—E'diteurs | 1862. 16mo., XI, 225; 4 cuts, 7 plates.

The | Taxidermists' Manual | or the | Art of Collecting, Preparing, and | Preserving Objects of | Natural History | by | Captain Thomas Brown, F. L. S. Twenty-first Edition | A. Fullarton & Co., London and Edinburgh | 1870. 12mo., XII, 150; 6 plates and cuts.

- Taxidermy | made easy; | being | Plain and Practical Directions | for | Preserving, Setting up, and Embellishing | in the most approved style | all kinds of | Quadrupeds, Birds, Fishes, | Reptiles, Insects, etc., | with Notes and Illustrations, | Designed for the use of Private Individuals, | Museums, etc. | Fourth Edition | enlarged. | Published by James Gardener | Naturalist to the Royal Family, | Chief Office—426 Oxford Street, Branch Depots—52 High Holborn, W. C., | and 292 Oxford Street, W., | Corner of Davis Street. | 1870 | London. 16mo., XIV, 88; one page of cuts.
- The | Naturalists' Guide | in Collecting and Preserving | Objects of Natural History | with | a Complete Catalogue of the Birds of Eastern Massachusetts. | by C. J. Maynard. | James R. Osgood & Company. | 1873. 12mo., IV, 167, II; 9 plates.
- Field | Ornithology | Comprising a | Manual of Instruction | for | Procuring, Preparing, and Preserving Birds | and a | Check List of North American Birds | by | Dr. Elliott Coues, U. S. A. Salem: | Naturalists' Agency | Boston: Estes & Lauriat. | New York: Dodd & Mead, 1874. 8vo., IV, 11.
- The | Indian | Ornithological Collectors | Vade Mecum | containing | brief practical instructions for | collecting, preserving, packing and | keeping specimens | of | birds, eggs, nests, feathers | and | skeletons | by | Allan Hume. | Calcutta Central Press Company, Limited | Calcutta | and | Messrs. Benard Quaritch | London | 1874. 12mo., II, 78.
- Directions | for | Preparing Skins | for | Museum specimens. | Issued for private circulation by Battle Creek College, Mich., 1877. 16mo. 12 pp. Contains—Museum Specimens | by W. T. Hornaday. | How to Skin Mammals, Prepare Skins, and | Make Rough Skeletons | and How to Skin Birds | by W. Hoxie, copied from N. E. Journal of Education.
- Practical Taxidermy: | A Manual of Instruction to the Amateur. | by | Montague Browne, | Bazaar Office, | London, | 1878.
- A Syllabus | of Practical Taxidermy | or | the Art of Preparing and Preserving | Specimens of Animals | Appendix to The | Treasury of National History | or | a Popular Dictionary of Zoology | by | Samuel Maunder | London | Longmans, Green & Co., | 1878. 12mo., 14.

- The | Taxidermists' Manual | a Complete Practical Guide to | Collecting, Preparing and Preserving | all kinds of | Animals, Birds, Reptiles, Insects, etc. | American Revised Edition from Twentieth English Edition. New York | Jesse Haney & Co. | 1878? 12mo., VI, III; 75 figures. Arevised reprint of Brown.
- Guide | dn | Naturaliste Préparateur | et du | Naturaliste Collectionneur | pour la recherche la chasse | la récolte, le transport, l'empaillage, le montage | et la conservation | des | Animaux, Végétanx, Mineraux et Fossils | par | G. Capus | Paris | Librairie J.—B. Baillière et Fils | 1879. 12mo., VIII, 344; 100 cuts.
- Taxidermy Without a Teacher | comprising | a Complete Manual of Instruction | for Preparing Preserving | Birds, Animals and Fishes | with a Chapter on Hunting and Hygiene; Instructions | for Preserving Eggs and Making Skeletons | and a Number of Valuable Receipts | by | Walter P. Manton | Illustrated | Second Edition, Revised and Enlarged | Boston | Lee & Shepard Publishers | New York, Charles T. Dillingham | 1882.. Sq. 16mo., 56 pp., 5 cuts.

CONSTITUTION

OF THE

SOCIETY

 \mathbf{OF}

AMERICAN TAXIDERMISTS.

NAME.

ARTICLE 1. This body shall be known as the Society of American Taxidermists.

OBJECTS.

ARTICLE 2. The objects of this Society are to promote intercourse between those who are interested in the art of Taxidermy in various parts of America, to encourage and promote the development of that art, and to elevate it to a permanent and acknowledged position among the fine arts.

MEMBERSHIP.

ARTICLE 3. Any taxidermist, whether amateur or professional, may become a member of the Society upon the written recommendation of one member, nomination by the Executive Committee, and election by a majority of members present at any regular meeting.

ARTICLE 4. The Society shall consist of Active members, Corresponding members, and Honorary members.

OFFICERS,

ARTICLE 5. The officers of the Society shall be elected by ballot in general session, and shall consist of a President, Vice President, Secretary and Treasurer, each of whom shall be elected at each annual meeting for the following one,

ARTICLE 6. The President, or in his absence the Vice President, shall preside at all general sessions of the Society, and at all meetings of the Executive Committee.

It shall be the duty of the President to give an address at a general meeting of the Society during the meeting over which he shall preside.

ARTICLE 7. The Secretary shall be the executive officer of the Society under the direction of the Executive Committee. He shall keep an account of all business that he transacts for the Society, and make an annual report which shall be laid before the Society. He shall issue a circular of information to the members at least two months before each meeting, and shall in connection with the Executive and Local Committees, make all necessary arrangements for the meetings and exhibitions of the Society. He shall receive and bring before the Executive Committee the titles and abstracts of papers proposed to be read before the Society. He shall receive and hold in trust for the Society all books, pamphlets, and manuscripts belonging to the association and allow the use of the same under the direction of the Executive Committee. He shall receive all communications addressed to the Society during the interval between meetings, and properly attend to the same.

ARTICLE 8. The Treasurer shall collect all assessments and admission fees and notify members of any arrearages. He shall keep an account of all receipts and expenditures of the Society, and make an annual report of the same to the Executive Committee for publication.

ARTICLE 9. The Executive Committee shall consist of the President, Vice-President, Secretary and Treasurer, and three members elected by ballot in general session. The duties of the Executive Committee shall be to manage the financial affairs of the Society; to nominate members; to arrange the business and programmes for general session; to appoint general sessions; to nominate the general officers for the following year, and to act upon all invitations extended to the Society; to examine papers and decide which shall be read and published in the proceedings. The Executive Committee shall meet at the call of the President.

ARTICLE 10. The Local Committee shall consist of members of the Society, residing at or near the place of the proposed meeting. It is expected that the Local Committee, assisted by the officers of the Society, will make all essential arrangements for the meeting, and issue a circular giving necessary particulars at least two weeks before the meeting.

MEETINGS AND EXHIBITIONS.

ARTICLE 11. There shall be every year, at such time and place as the Executive Committee may nominate and be chosen by a majority of the members, a general meeting of the Society and an exhibition of work, for four days or longer. General sessions shall be held at 10 o'clock A. M., unless otherwise ordered, on every day of the meeting, Sundays excepted, at which time papers may be read and discussed.

ARTICLE 12. Besides the general meeting, the President and Executive Committee shall have the power to eall a business meeting of the Society, once every three months if necessary, in the town or city which contains the largest number of Society officers or active members.

ARTICLE 13. Section 1. Every exhibition shall be competitive throughout, and will be divided into four classes, viz.: Mammals, Birds, Reptiles and Fishes. In each of these classes there shall be awarded a Certificate of Merit, showing that any one holding such certificate has made a highly

creditable exhibit of mounted specimens in that section. The Certificate of Merit shall be equivalent to a second class prize, but when two or more exhibits are of equal merit, then each one shall be awarded a certificate.

Section 2. In each class there shall also be awarded a DIPLOMA OF HONOR, showing that any one holding such diploma has made a first class exhibit in that class.

The Diploma of Honor shall be equivalent to a first prize, but more than one may be awarded in each class under the same conditions as the certificate.

Section 3. There shall be a Silver Medal awarded to any member of the Society who shall win a Diploma of Honor in each of the four different classes, whether at one exhibition or at many, or to any member who shall at any one exhibition make a first class exhibit of specimens in each of the four classes—Mammals, Birds, Reptiles and Fishes. This shall be known as the Medal for General Average.

Section 4. There shall be a SILVER MEDAL awarded at each exhibition for the best special piece of work which shall reveal the most artistic design, the most perfect execution and the greatest amount of surmounted difficulty. In case there should be in any one exhibition two or more pieces of work, differing in character but of equal excellence, then more than one silver medal may be awarded at a single exhibition. Such medal shall be known as the Specialty Medal.

Section 5. There shall be awarded at each annual exhibition, for the second best piece of work, in whichever of the four classes such work may appear, a Bronze Medal. This medal shall be known as the Second Specialty Medal.

Section 6. The Executive Committee shall present to the Society, six months before each annual exhibition, a schedule of awards embracing those already detailed in this article (13), and such additional special classes to be awarded medals, diplomas or certificates, as the committee deem expedient. On the approval of a majority of the Society this schedule shall form the basis of award at the ensuing annual exhibition, and each member of the Society shall at once be furnished with such approved schedule on which awards are to be made.

Section 7. A committee of three, to be called the Inspection Committee, shall be appointed by the Executive Committee, at such time as shall be deemed proper, before each annual exhibition. This committee shall have the power to report to the Executive Committee on the condition of the exhibits entered. Exhibitors shall send their names and addresses to the chairman of the committee, together with a list of the objects they intend to enter.

Section 8. The judges who shall award prizes must be furnished by the Secretary with a printed copy of Article 13, and the accepted schedule of the Executive Committee.

ARTICLE 14. Section 1. No piece having taken a prize shall be entered for competion a second time, but such piece may be placed on exhibition as often as its proprietor desires.

Section 2. No member shall ever exhibit any specimens other than those mounted by his own hands, under penalty of expulsion from the Society and forfeiture of all honors previously won. Upon entering specimens for any

axhibition, every exhibitor shall sign a written declaration that said specimens have been mounted by his own hands, and without skilled assistance of any kind from any other taxidermist.

JUDGES.

ARTICLE 15. For each exhibition there shall be elected by the Society three competent judges, who are not active members, who shall critically examine each specimen, group, or collection which is entered in competition in the exhibition, and award it the honor to which it is justly entitled. The decisions and awards of the judges shall be final.

PAPERS AND COMMUNICATIONS.

ARTICLE 16. All members must forward to the Secretary as early as possible before the convening of the Society, full titles of the papers they propose to present during the meeting, with a statement of the time that each will occupy in delivery, and also such abstracts of their contents as will give a general idea of their nature.

PRINTED REPORT.

ARTICLE 17. The Secretary shall have a full report of each general meeting and exhibition printed in an octavo volume as soon after the meeting as possible. Authors must prepare their papers ready for press within one month after adjournment, otherwise only the abstracts will appear in the printed volumes. Illustrations must be provided for by the authors of the papers, or by a special appropriation from the Executive Committee. Whenever a silver medal is awarded for a special piece of work, whether a single specimen or a group, said piece of work shall be photographed at the expense of the Society, and a copy of the same inserted as a frontispiece to the volume of the report for that meeting and exhibition. Immediately on publication of the volume, a copy shall be forwarded to every member of the Society who shall not be in arrears upon the Treasurer's books, and it shall also be offered for sale by the Secretary. The Executive Committee shall designate the institutions to which copies shall be distributed.

ADMISSION FEE AND ASSESSMENT.

ARTICLE 18. The admission fee for active members shall be three dollars. The annual assessment for active members shall be two dollars, payable within one year under penalty of expulsion from the Society.

All fees and assessments must be paid to the Treasurer who shall give proper receipts for the same.

ARTICLE 19. The accounts of the Treasurer shall be audited annually by two auditors appointed by the President.

AMENDMENTS OF THE CONSTITUTION.

ARTICLE 20. No part of this Constitution shall be amended or annulled without the concurrence of three-fourths of the members, either present in general session, or voting by postal card to the Secretary.

APPENDIX.

PRICES FOR TAXIDERMIC WORK.

FROM WARD'S NATURAL SCIENCE BULLETIN.

The taxidermists of this country are, almost without a single exception, very poorly paid for their work, and nuless a vigorons stand is made they will always remain so. The prices now paid by the patrons of the art are, generally speaking, far below the value of really artistic work, consequently the average of work done is far below what it should be, and both artist and customer have reached the sticking point. The latter says, "Until I get better work I will not pay higher prices," and the former retorts, in self-defense, "Until I am better paid for my work I cannot afford to spend any more time on it than I do now."

Both are right, but at the same time both are wrong, and the taxidermist is the sufferer. The first principle of a business is that a man must live. To do this, he must make a profit on his work, and sometimes it seems necessary to do this even under the certainty of turning out poor work. Take, for example, the mounting of a deer head on a shield. Most taxidermists of my acquaintance charge \$8 for the work and furnish the shield. The shield costs, let us say, \$1.50, and the glass eyes fifty cents, which, not counting any further cost of materials, leaves the sum of \$6 to pay for skinning a head, cleaning and thinning down the skin, preserving and mounting it "in the highest style of the art," and perhaps boxing the head to send away by express. Only six dollars!

To make even poor wages, all the work on that head from first to last must be done in two days, which yields to the taxidermist the very moderate sum of \$3 per day for his work. And what is the result of actually accomplishing all the work indicated above in twenty hours? As sure as fate it is a poorly stuffed head, which has perhaps not even one anatomical feature correct to life. If any one doubts this assertion I ask him to place beside a deer head mounted for \$6, the head of a live deer, or one freshly cut from the dead animal.

Let no one of my fellow workers take offense at the above, or consider it as intended to apply personally, for such is not the fact. I venture to assert that no man living can mount a deer head and do all the work necessary upon it within twenty hours, or even twenty-five, and make it look like life. It would be impossible for me to do it. Even in three days I cannot finish a head and give a long neck the exact shape and size it had on the living animal. To be sure, I could stuff a head as quickly as most taxidermists, perhaps, but a head filled hastily with loose filling alone, with the nose twice as large as in life, the lips twice as thick, the cheeks twice as full, and the neck twice as large as it should be, with the eyes bulging clear ont beyond the orbit—a head so finished is only stuffed. It is not a work of art, it cannot add to a reputation, and it is only an additional weight upon the progress of the profession. The man who pays for such a head naturally regards it as the best the taxidermist can do, and he will naturally refuse to pay a higher price until he has seen better work.

The point I wish to make is this: Taxidermists should study such living animals as they are likely to have in hand, regardless of what it costs, and then prove to their patrons, by a few pieces of elegant sample work, that they can make animals look like life. When this is done, put up the prices. Make them high, so that one can afford to lavish study and labor upon a specimen, and bring out its points of external anatomy. There are plenty of men who will pay a high price for work the moment they can be assured it shall be as nearly perfect as human skill can make it. Charge at least \$15 or \$20 for mounting a deer head; spend three or four days upon it, and the piece will be sure to bring you others at the same price. Prove that for a high price you can turn out high-class work, and unless you wish to cut

your own throat financially, refuse to do poor work in return for poor pay. The price for mounting a deer head in this establishment has been, up to this time, \$12; but henceforth we hope that Prof. Ward will not talk of doing them in our very best style for less than \$20 to \$25, including shield. As the quality of our work more nearly approaches perfection by the discovery of new methods and a closer study of living animals, we find it necessary to devote more time to them, and our work is able to command a higher price.

The man who puts too low an estimate either on himself or his work, makes a great mistake. Taxidermists injure themselves personally and the profession generally, by leading people to suppose that work can be done for a mere song. It is impossible for a worker to turn out perfect work under such conditions. For instance no man should agree to mount a pointer dog for less than \$50, or a head for less than \$15. A common cat should not be touched for less than \$10. It is worth not less than \$300 to mount a horse, and a prominent New York artist assured me that there are turfmen who will be ready to pay \$500 whenever we prove to them that it is possible to have a trotter mounted whose attitude, form, size and muscular development shall be like those of the animal in life. This same artist asserted that nearly all the prices on the work in the Boston exhibition of the Society of American Taxidermists were too low.

If we are to do better work than at present obtains, we must have better prices. If we do not first show what we can do when we try, we need not expect better patronage, and without this we cannot expect to make any marked advancement.

WM. T. HORNADAY.

ANNOUNCEMENT.

LIST OF HONORS, REGULAR AND SPECIAL, TO BE AWARD-ED AT THE THIRD ANNUAL EXHIBITION.

NEW YORK CITY, APRIL, 1883.

By special act of the Society the list of Honors for the Second Exhibition (for which see page 7) is adopted entire and without change for the Third Exhibition. A new class was also created for *Honorary Exhibits*, which will embrace all objects calculated to serve as models for the taxidermist, such as plaster or bronze casts of animals, skeletons, animals modeled in clay or plaster, animal drawings and illustrations of all kinds. Any person may display articles in this class, except that the exhibition of all objects offered by persons not active members of the Society will be subject to the approval of the Executive Committee.

WM. T. HORNADAY,

Secretary.

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